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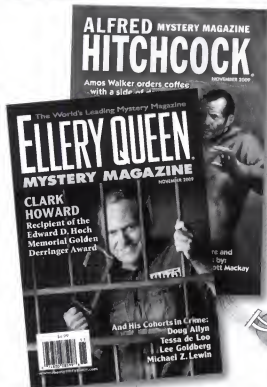
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DECEMBER 2010

Vol. 34 No. 12 (Whole Number 419)

Next Issue on Sale November 9, 2010

Cover Art for "Plus or Minus"

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NOVELETTES

- 10 PLUS OR MINUS JAMES PATRICK KELLY
86 WARFRIENDS TOM PURDOM

SHORT STORIES

- 28 LIBERTARIAN RUSSIA MICHAEL SWANWICK
35 SINS OF THE FATHER SARA GENGE
42 FREIA IN THE SUNLIGHT GREGORY NORMAN BOSSERT
49 VARIATIONS IAN WERKHEISER
58 EXCELLENCE ROBERT REED
70 THE PRIZE BEYOND GOLD IAN CREASEY

POETRY

- 57 XENOAESTHETICS F. J. BERGMANN
69 SAILOR MARK RICH
85 BLUEPRINT FOR A DOMED CITY JESSICA TAYLOR

DEPARTMENTS

- 4 EDITORIAL: SHEILA AND TED'S
EXCELLENT ADVENTURE SHEILA WILLIAMS
7 REFLECTIONS: REREADING KORNBLUTH .. ROBERT SILVERBERG
106 NEXT ISSUE
107 ON BOOKS PETER HECK
112 THE SF CONVENTIONAL CALENDAR ERWIN S. STRAUSS

Asimov's Science Fiction ISSN 1065-2698. Vol. 34, No. 12. Whole No. 419, December 2010. GST #R123293128. Published monthly except for two combined double issues in April/May and October/November by Dell Magazines, a division of Crosstown Publications. One year subscription \$55.90 in the United States and U.S. possessions. In all other countries \$65.90 (GST included in Canada), payable in advance in U.S. funds. Address for subscription and all other correspondence about them, 6 Prowitt Street, Norwalk, CT 06855. Allow 6 to 8 weeks for change of address. Address for all editorial matters: *Asimov's Science Fiction*, 267 Broadway, 4th Floor, New York, N.Y. 10007. *Asimov's Science Fiction* is the registered trademark of Dell Magazines, a division of Crosstown Publications. © 2010 by Dell Magazines, a division of Crosstown Publications, 6 Prowitt Street, Norwalk, CT 06855. All rights reserved, printed in the U.S.A. Protection secured under the Universal and Pan American Copyright Conventions. Reproduction or use of editorial or pictorial content in any manner without express permission is prohibited. Please visit our website, www.asimovs.com, for information regarding electronic submissions. All manual submissions must include a self-addressed, stamped envelope, the publisher assumes no responsibility for unsolicited manuscripts. Periodical postage paid at Norwalk, CT and additional mailing offices. POSTMASTER, send change of address to *Asimov's Science Fiction*, 6 Prowitt Street, Norwalk, CT 06855. In Canada return to Worldcolor St. Jean, 800 Blvd. Industriel, St. Jean, Quebec J3B 8G4.

Printed in CANADA



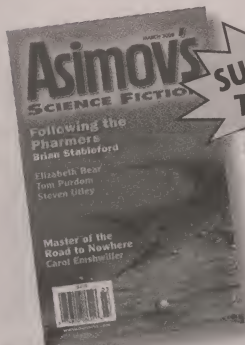
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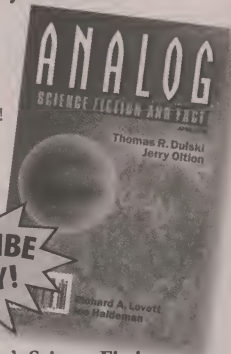
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SHEILA AND TED'S EXCELLENT ADVENTURE

The Oscars may have their red carpet, the Tonys, their Broadway stars, but this year's Nebula Award weekend included an affair that outshone any actor or Hollywood affair. This was not the actual ceremony, but the May 14, 2010, launch of the Space Shuttle *Atlantis*. I had the great pleasure of watching this event from the VIP bleachers of the Banana Creek Viewing Site with *Asimov's* Nebula Award finalist Ted Kosmatka.

I've always wanted to attend a space launch. Last month I mentioned that my father was frequently in the Cocoa Beach area. On December 7, 1972, he and my mother witnessed the launch of Apollo 17. While I was enchanted by my parent's vivid description of the night sky on fire, I knew theirs was an experience I couldn't hope to duplicate. Apollo 17 was both the first crewed night launch and the last Moonshot. It seemed to take years before

the Space Shuttle program was in full swing, and by then I was living in New York and my family no longer made regular visits to Cape Canaveral.

Naturally, I was thrilled when I heard that the Science Fiction and Fantasy Writers of America had decided to hold the 2010 Nebula Awards weekend in conjunction with what would most likely be the ultimate launch of the *Atlantis*. I jumped at the chance to get a ticket to the space shot and was included in a small group of presenters and finalists who were able to watch the shuttle lift off three miles from its launch pad.

I had much of the same sort of fun at the Apollo/Saturn V Center, which is next to the viewing site, as I usually have over the Nebula weekend. I got to shop for souvenirs with my good friends, Betsy Wolheim and Sheila Gilbert, co-publishers of DAW Books; I had lunch at the



Ted Kosmatka and the Saturn V



Waiting for T-0

Third row, L. to R: Sheila Williams, Rachel Swirsky, Michael Swirsky
 Second row L. to R: Ted Kosmatka, Dmitri Zagidulin, Catherynne M. Valente
 First row, L. to R.: Keith Stokes, Matthew Foster, Eugie Foster

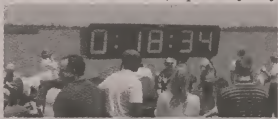
center with SFWA's executive director, Jane Jewell, and her husband (and *Asimov's* book reviewer) Peter Heck; and I got to wander around with my author.

Ted and I marveled at the enormity of the gigantic Saturn V rocket suspended from the center's ceiling. When Ted went outside to save a couple of seats, I ducked into some of the special exhibits. In addition to a backup Apollo command module and an unused Lunar Module, the center had a fascinating exhibit on the evolution of the spacesuit and casts of some of the Apollo astronaut's hands.

After a while, I began to worry that I would miss the launch so I hurried outside to join Ted and a talented group of award finalists that included Rachel Swirsky, Eugie Foster, and Catherynne M. Valente, as well as Keith Stokes, who was being honored at the Nebulas with a SFWA Service Award. It looked like I had cut it fairly close since there was less than twenty minutes left on the Countdown Clock. We thought that meant that the shuttle might be taking off early, but we soon discovered that

there would be a forty-five minute scheduled hold at the T-9 minute mark.

Many space shots are delayed due to weather or mechanical issues. I had come to Florida with some expectation that I might not get to see the shuttle take off at all or that the launch would be postponed until the next day, when we would all have to watch it from the beach (which wouldn't have been half bad), because SFWA only had one-day access to the bus that would ferry us to the official site. The weather was beautiful, though, and everything seemed to be moving along fine when suddenly it was announced that unresolved questions about a stray ball bearing might force NASA to scrub the mission. Although the wait seemed endless, it probably only



Countdown Clock

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took about ten minutes before we were told that the ball bearing wasn't a problem, the shuttle was still on the clock, and that it would almost certainly take off at the 2:20 launch time.

The moment of lift-off can only be described as exhilarating. I'm not sure if my heart was pounding so hard because of the reverberations from the launch, my excitement at being there, or some subconscious fear for the astronauts' safety. It was a sensation unlike any I've ever experienced. Our view was perfect. Less than two minutes after T-0 we were told that the shuttle had already traveled twenty miles—nineteen of them straight up into the stratosphere.

In 2009, SFWA asked the singer/songwriter Janis Ian to act as Toastmaster for the awards. The words to the lovely song she performed as a tribute to the Nebulas were printed in last month's issue and the song can still be heard on our website. This year SFWA arranged a shuttle launch in honor of Ted and the other finalists. I can't imagine what this group of speculative authors will come up with next year, but I'm certainly looking forward to the adventure. ○



Atlantis at liftoff.

Photo by Ted Kosmatka

REREADING KORNBLUTH

I first saw his name on the contents page of the July 1949 issue of the now forgotten pulp magazine *Startling Stories*. I was a high-school sophomore then, reading too much science fiction when I should have been studying my geometry and Latin. His short story, "The Only Thing We Learn," probably made little impact on my adolescent self, because—as I observed when I read it last week—it's a subtle, oblique, elliptical, sardonic piece of work. Those adjectives apply to most of what Kornbluth wrote during his short, brilliant career, but I was only mildly interested in subtlety in those days, and in that issue I was probably more impressed by George O. Smith's slam-bang lead novella, "Fire in the Heavens."

I encountered the Kornbluth byline again a few months later in a second-hand issue of *The Avon Fantasy Reader*, the superb bi-monthly anthology/magazine that Donald A. Wollheim was editing, devoted to reprints of weird, horror, and fantasy classics. The Kornbluth story was "The Words of Guru" of 1941, from a pulp magazine that Wollheim had edited before the war. Wollheim explained that in his pre-war career Kornbluth had employed an assortment of pen names—S.D. Gottesman, Cecil Corwin, Kenneth Falconer, etc. What he did not say was that this reprint of "Words of Guru" used Kornbluth's own byline for the first time in any science fiction magazine, because *all* his pre-war work had been done under pseudonyms. He also didn't tell me that Kornbluth had been not quite sixteen, a junior in high school, when he wrote it. I probably would not have been happy to know that, because "The Words of Guru" is a taut, crisp, perfectly executed story with a final sentence that hit me so hard when I first read it that I have never forgotten it. I would be happy to write a sto-

ry that good today. I had my own teenage writing ambitions back there in 1949, but I could never have come within a mile of what Kornbluth had accomplished in that precocious masterpiece.

That one story taught me to keep my eye out for the work of C.M. Kornbluth. He turned up again in the July 1950 issue of *Astounding Science Fiction* with "The Little Black Bag," which even at the time I recognized as something special. It was destined to be anthologized many times over, and in 1967 the members of the Science Fiction Writers of America chose it for the definitive anthology of great short stories, *The Science Fiction Hall of Fame*.

Six months after "Little Black Bag" came "The Mindworm," in the first issue of Damon Knight's splendid, short-lived magazine, *Worlds Beyond*. Knight believed that SF could be something more than fast-paced pulp fiction, and that December 1950 issue contained not only stories by regular science-fictionists like Jack Vance, Fredric Brown, and Kornbluth, but reprints of work by Franz Kafka, Graham Greene, and Philip Wylie. Kornbluth's story, lean and frightening and driving relentlessly on to a surprising but inevitable conclusion and an aphoristic final sentence, fully lived up to the two great ones of his I had read in the previous year.

By then I knew he was a short-story writer endowed with wit, grace, a powerful imagination, and—not so common back then—a distinctive, immediately recognizable style. For the next seven years I pounced on his work wherever I encountered it. As a young would-be writer I met him at a small science fiction convention, and he treated me kindly. We became friends.

And then, in 1958, he died. He was only 34.

* * *

You probably haven't read any of C.M. Kornbluth's work. You should. He was one of the masters. There are two essential books that will tell you all you need to know about him. One is Mark Rich's magisterial biography, *C.M. Kornbluth: The Life and Works of a Science Fiction Visionary*, published in 2009 by MacFarland & Company. The other is *His Share of Glory: The Complete Short Science Fiction of C.M. Kornbluth*, edited by Timothy P. Szczechuil and published in 1997 by NESFA Press.

The Rich book, 437 large, densely packed pages, is the product of fifteen years' research. It follows this short-lived genius from his birth in 1923 through his adolescence as a science fiction fan, his eerily precocious ventures into writing, his boyhood friendships with such later great figures of the science fiction world as Frederik Pohl, James Blish, Damon Knight, Isaac Asimov, and Donald A. Wollheim, his arduous military service in Europe during World War II, and his glorious though troubled post-war career as a first-rate science fiction writer, on to his miserably early death, on a railway station in a suburb of New York, after he had overexerted a heart that most probably had been damaged by the stress of his military life. It's a fascinating, chilling story, full of marvelous literary gossip about the science fiction world of the forties and fifties, some of it new and startling even to me, though I was part of that scene myself during the last four years of Cyril's life (and was one of the many sources interviewed for the book).

The NESFA book is even bigger: 670 pages, 56 stories, going back to his early pseudonymous work for the pulp magazines of 1940-42, and continuing on beyond the wartime hiatus to his great post-war work and the superb posthumously published stories of 1958 that indicate the even greater unrealized accomplishments that surely lay ahead. Even then the book, though it claims to include his complete short fiction, may not include it all, for seven other early pulp stories, all of them hastily written hackwork, were

collected in the 1980 paperback *Before the Universe*, published as being by Frederik Pohl and C.M. Kornbluth, but—so Mark Rich believes—written entirely or mostly by Kornbluth. According to Rich, Pohl supplied outlines for most or all of these stories, but Kornbluth did the actual writing. Back then they both lived in a sort of science fiction writers' commune, along with Blish, Knight, Wollheim, and various others, and after a lapse of nearly seventy years it's impossible to determine who wrote what in that milieu of free-floating collaboration. But my own recent rereading of those stories leads me to think that they are mainly the work of the teenage Kornbluth, though far from his best work even at that time.

Even that early hackwork, knocked out overnight at top speed, holds some interest, though. The plots derive from the formula pulp SF of the day, the characters are strictly cardboard, the dialog is full of comic-book clichés like “What the—” and “That tears it!” But there is a sparkling inventiveness throughout, and sly little touches (in one story a character quotes a line from Dante, without attributing it, as she views the stars from her ship) that reveal the young prodigy, slumming.

I suspect his best-known story is “The Marching Morons,” from 1951. Even people who have never heard of Kornbluth are familiar with its basic idea. He first proposed it, obliquely, in his 1950 classic, “The Little Black Bag”: that after centuries in which the least intelligent members of our species reproduced incessantly and the brightest ones rarely had children at all, the human race would consist of billions of morons shepherded by a tiny high-IQ elite that would constantly be at wits' end to keep the world functioning. He told that story first by having a bag of futuristic medical equipment, designed so that any dope could use it to perform advanced medical techniques, accidentally sent back in time to 1950. In “The Marching Morons” he reversed the theme, sending a twentieth-century man forward in time to the moron-dominated world of

three or four hundred years from now. Rereading it last week with the sharp eyes of someone who has been writing science fiction for two decades longer than Cyril Kornbluth's entire lifespan, I noticed certain plot problems in it that I hadn't spotted on earlier readings: the solution to the Too Many Morons problems that the story proposes, not very different morally from the Hitlerian Final Solution to the Jewish Problem, doesn't really make sense in terms of Kornbluth's own stated story information. But that hardly matters. The fundamental point of the story remains intact, and there is no way to find fault with Kornbluth's elegant narrative style. As for the moronic world of the far future that he depicts for us, it is all too uncomfortably similar to our present-day culture of idiotic TV reality shows, crudely ungrammatical newspapers, and unending texting by barely literate teenagers. He saw the future that lay ahead for us better than anyone except, perhaps, Philip K. Dick.

The NESFA collection—not, alas, arranged chronologically—also shows us the late masterpieces, the 1958 stories, that indicate where Kornbluth may have been heading as an artist. “Theory of Rocketry,” about a boy who wants to be an astronaut so badly that he is willing to commit any betrayal necessary, was science fiction in its day; time and the space program have made a mainstream story out of it now. “Shark Ship,” showing the world transformed by ecological dis-

aster, may seem familiar today, but it was a dazzling extrapolation fifty years ago, and is a gripping story even now. And “Two Dooms,” perhaps his most mature work, portrays a United States conquered by Japan and Germany with a vividness that has only been matched by Philip K. Dick's *The Man in the High Castle* of six years later. Judging by the quality of his prose and his insight into character, Kornbluth in his final year had grown restless with the limitations science fiction imposes and was looking toward the mainstream of fiction.

I haven't even mentioned the collaborative novels—*The Space Merchants* and two others done with Frederik Pohl, *Mars Child* and *Gunner Cade* with Judith Merrill, the three (*The Syndic*, *Take-off*, *Not This August*) he did on his own, or the six pseudonymous mainstream books. He crowded a lot of living and a lot of writing into a very short time, did Cyril Kornbluth. Then on a winter day in 1958 he shoveled snow from his driveway and hurried to catch a train and died of a heart attack, at thirty-four, at the railway station. Stanley G. Weinbaum (“A Martian Odyssey”), an earlier precocious genius of science fiction, died at thirty-five. Mozart did also. What any of them might have created in the later years of life that were denied them belongs in the realm of alternative history. But we are grateful that Weinbaum and Mozart wrote what they did; and I think you will add C.M. Kornbluth to their number when you discover his stories. ○

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PLUS OR MINUS

James Patrick Kelly

Jim Kelly checked in from Dingle, Ireland, where he was teaching at the Stonecoast Creative Writing MFA program, to say, "The Asteroid Belt is one of the stops most science fiction writers make on their literary tour of the solar system. Here is my version of a future in which everyday folks working in space face the ultimate challenge."

Everything changed once Beep found out that Mariska's mother was the famous Natalya Volochkova. Mariska's life aboard the *Shining Legend* went immediately from bad to awful. Even before he singled her out, she had decided that there was no way she'd be spending the rest of her teen years crewing on an asteroid bucket. Once Beep started persecuting her, she began counting down the remaining days of the run as if she were a prisoner. She tried explaining that she had no use for Natalya Volochkova, who had never been much of a mother to her, but Beep wouldn't hear it. He didn't care that Mariska had only signed on to the *Shining Legend* to get back at her mother for ruining her life.

Somehow that hadn't worked out quite the way she had planned.

For example, there was crud duty. With a twisting push Mariska sailed into the command module, caught herself on a handrail, and launched toward the starboard wall. The racks of instrument screens chirped and beeped and buzzed; Command was one of the loudest mods on the ship. She stuck her landing in front of navigation rack and her slippers caught on the deck burrs, anchoring her in the ship's .0006 gravity. Sure enough, she could see new smears of mold growing from the crack where the nav screen fit into the wall. This was Beep's fault, although he would never admit it. He kept the humidity jacked up in Command, said that dry air gave him nosebleeds. Richard FiveFord claimed they came from all the drugs Beep sniffed, but Mariska didn't want to believe that. Also, Beep liked to sip his coffee from a cup instead of sucking it out of a bag, even though he slopped all the time. Fungi loved the sugary spatters. She sniffed one particularly vile-looking smear of mold. It smelled faintly like the worms she used to grow back home on the Moon. She wiped her nose with the sleeve of her jersey and reached to the holster on her belt for her sponge. As she scrubbed, the bitter vinegar tang of disinfectant gel filled the mod. Not for the first time, she told herself that this job stunk.

She felt the tingle of Richard FiveFord offering a mindfeed and opened her head.
=What?=
His feed made a pleasant fizz behind her eyes, distracting her. =You done any time soon?=
Distraction was Richard's specialty.

=No.=

=Didit is making a dream for us.=

She slapped her sponge at the wall in frustration. =This sucks.= Mariska couldn't remember the last time Didit or Richard FiveFord had pulled crud duty.

=Should we wait for you?=
 =If you want.= But she knew they wouldn't. =Might be another hour.=

"You're working, Volochkova." Beep's voice crackled over the loudspeaker. One of his quirks was snooping their private feeds and then yelling at them over the ship's com.

"Yes, sir," she said. Beep liked to be called sir. It made him feel like the captain of the *Shining Legend* instead of senior monkey of its maintenance crew.

"She's working, FiveFord. Leave our sweet young thing alone."

She felt Richard's feed pop like a bubble. He was more afraid of Beep than she was even though the old crank hardly ever bullied Richard. Mariska hated being called *sweet young thing*. She wasn't sweet and she wasn't all that young. She was already fifteen in conscious years, eighteen if you counted the time she had hibernated.

When Mariska finished wiping the wall down, she paused at the navigation rack. She let her gaze blur until all she saw was a meaningless shimmer of green and blue light. Not that she understood the rack much better once she focused again. She had been job-shadowing Beep for 410 million kilometers and eleven months now. They had traveled all the way to SinoStar's *Rising Dragon* station and were passing Mars orbit on the way back to the Moon, and she had mastered less than two-thirds of the nav rack's screens. If she had used a feed to learn the read-outs, she would have been nav qualified by now, but Beep wouldn't allow feed learning. He insisted that she shadow him. Another quirk. He was such a fossil.

She said, "Close astrometry, she ordered." The shipbrain cleared the readouts of the astrometry cluster from the screen. "Time?" A new cluster appeared. It was 14:03:34 on 5 July 2163. The mission was in its three hundred and ninth standard day. Enough water ice aboard for two hundred and eleven days of oxygen renewal. Mid-course switchover from acceleration to deceleration would take place in three days, two hours, and fifty-nine minutes. The ship's reaction mass reserves of hydrogen would permit braking for one hundred and seventy-three days. More than they needed. Acquisition of the approach signal for *Sweetspot* station would occur in just one hundred and fifteen days, three hours, forty-seven minutes.

Mariska bit her lip. Even if by some miracle she could get home the day after tomorrow, it wouldn't be soon enough for her. She glanced up at the tangle of cables that Beep had strung from nav's access port to its backup rack. They swayed weightlessly in the currents of the air recycling system. Were those blue-black splotches on that cable sheath? They were. With a groan, Mariska peeled her slippers from the deck and launched herself toward the ceiling, sponge at the ready.

It took almost two hours to finish—although crud duty was never-ending. In another week it would be back; crud had been climbing the walls of spaceships for two hundred years now. The stuff offended Mariska's lunar sensibilities. There had been none of it on the Moon, or if there had been, she had never seen any. But Haworth, the crater city where she had grown up, was a huge environment. Compared to it, the *Shining Legend* was a drop in the Muoi swimming pool.

By the time she flew back to Wardroom C, Glint, Didit, and Richard were already lost in the dream. Each had tethered themselves to the wall and drifted aimlessly, occasionally nudging into one another. They weren't asleep exactly. It was just that linking feeds to create a communal dream took concentration. Reality just got in the way. But Richard noticed when Mariska came through the hatchway and roused himself.

"Mariska." His voice drowsed. "Hey monkeys, it's Mariska."

Glint blinked as if she were a mirage. "Mariska." To Glint she probably was. "S not too late."

She knew it was, but she opened her head a crack to take in their common feed. Didit had created a circus framework; she was good at dream narratives. She had raised a

striped tent and a rusting iron pyramid from a grassy field. A parade of outsized animals trudged down a dirt road: cows and polar bears and elephants and a whale with squat legs. Glint's contribution was sensory. She was an amateur artist and had painted the feed with moist summer heat, the smell of popcorn and barns and sweat, the tootling of a pipe organ, and the delicate taste of dust from the road. But what Mariska liked most was her sky. It was the deep blue of the oceans as seen from space and had a kind of delicious weight, as if it had been filled with more air than any sky had ever been. Richard supplied the details. He was the only one of them who had actually lived on Earth and had seen an elephant or had walked on living grass.

If Mariska had spotted any of her bunkmates in the dream, she might have tried to catch up to them, even though they had created the feed without her and were already deep into its mysteries. She gave up looking when she heard laughter and applause coming from the tent. She was alone again. So what was new? She closed her head and left them to their fun.

Mariska was the youngest of the five-person crew assigned to the *Shining Legend*. There were three other maintenance monkeys job-shadowing Beep. This was her first—and last—asteroid run. Being the rookie shadow meant getting stuck with the worst chores, having no say about anything, and getting left out half the time. She stripped off her coverall and underwear, wadded the lot into a ball, and crammed it into the clothes processor. She didn't know which she hated more, the mindless work or the smothering boredom when there was no work to do. She heaved herself into the cleanser, zipped the seal shut, and slipped the spray wand from its slot. On the Moon, she could have let the cleanser fill with steam. Warm mist would bead on her skin and trickle deliciously down her body. But in space, there was no down. The wand's vacuum nozzle sucked the water off her before she had a chance to savor it. She came out of the cleanser free of mold spores but chilled. She snatched a fresh coverall from the processor's drawer.

As she dressed she tried to convince herself that getting left out didn't matter, that she didn't even like the other monkeys. Of course, this wasn't true. She would have done almost anything to get them to accept her as an equal. She jammed her arm into a sleeve. She was irked that Richard hadn't made the others wait for her. She knew he wanted to have sex with her and recently she had been surprised to find herself warming to him, despite his nightmarish body. Even though he had lived in space for four of his nineteen years, Richard had been warped by Earth's freakish gravity. He was tall and his head was way too big and all those grotesque muscles scared her. If she was a monkey, then he was a gorilla.

Mariska had made out a couple of times with Glint, but it wasn't very good for either of them. Glint and Didit were sister clones of a woman named Xu Jingchu, a big name at SinoStar Ltd. Glint was eighteen and Didit was fifteen. Genetically tweaked for weightlessness, they were as dainty as Richard was gross. They had slender limbs and beautifully defined ribcages and were so tiny that they might have been mistaken for elves or fourth graders. Their delicate bones were continually reinforced by some kind of super powered osteoblasts or something. They had thick pubic hair and small breasts but no wasteful reproductive systems. People living on the Moon or Mars or in space didn't make babies by having sex. Their kids would have two heads or no lungs because of the cosmic radiation. At the start of the run Mariska had hoped that she and the Jingchu sisters might be friends. But it never really happened, despite all her efforts to reach out. Didit and Glint treated her like the rookie she was.

Mariska was a clone too, but Natalya Volochkova had had her daughter tweaked to go to the stars. Mariska hadn't asked for the genes that made it possible for her to hibernate and she didn't want to crew on a starship. But her mother had made those decisions for her—or thought she had until Mariska had run away to crew on an as-

teroid bucket. She had hoped to keep her past a secret from the little crew of the *Shining Legend*. But Beep had found her out and told everyone and now she was sure they resented her for throwing away a chance they all would have jumped at.

When Didit's arm brushed her sister's face, she murmured something that Mariska didn't catch. She studied the two sisters and wondered if maybe her body unnerved them as much as Richard's unnerved her.

"Moo," said Glint. "Moooo."

Mariska had an impulse to yank on her tether, pull the little monkey down and tell her to start the dream over. Include her this time. "Moo yourself," said Mariska. She flipped out of the wardroom and angrily pulled herself upspine toward Galley.

Mariska shook a sippy cup of borscht until it was hot. She bungeed herself to a dining stand and woke up the screen beside it. Lately she had been looking at the news. Even though it was boring, it made her feel grown-up. Today was all about Mars. Construction of the last phase of the Martinez space elevator had finally been funded. Maybe a job there for her? Vids of genetically tweaked Martians picketing the domes of Earth-standard Martians. Never mind—she was never going to Mars. They were taking applications again for emigration to the colony on Delta Pavonis 4, the terrestrial planet that the *Gorshkov* had just discovered. Natalya Volochkova had been chief medical officer on that mission. Mariska didn't get why the *Gorshkov* crew hadn't given it a real name. Who would want to move to a planet called 4?

She sipped some of the borscht and sighed. Another thing that she hated about space was everything tasted bland, like oatmeal or crackers.

She checked her inbox and as usual there was a message from her mother. *Golubushka, nothing, nothing, nothing, can't wait to see you again, love, Mama*. She deleted it, as usual. Once again, nothing from Jak. Back on the Moon they had been all but engaged to be married and become deep spacers and go to the stars together. But she was over him now. Still, it would be nice to hear something, seeing as how she would have gladly had sex with *him* if only *he* had waited for her. Maybe he was applying to emigrate to Planet 4. Maybe he was already there. Good riddance.

She missed him.

"Mind if I join you?"

She hadn't heard Beep slip into the stand beside her. With its clatter of fans, pumps, and compressors, Galley was almost as noisy as Command. The creak of the hull expanding and contracting was particularly bad here. "No sir," she said, and wiped the screen.

Beep was maybe forty, maybe eighty. She couldn't tell. Living in space faded different people at different rates. The stubble on his head and chin had gone gray and there was a dimpled scar on his cheek where the cancer had been carved out. He had the slouch that all bucket monkeys got from spending too much time weightless. There was nothing special about his coveralls, but one of the *Shining Legend's* two override cards hung from his neck on a green lanyard.

"I had a message today from your mother." He scanned the galley menu. "I was given instruction." His eyes were watery and vague.

"Really?" She felt her cheeks flush. "What did she say?"

"To take good care of you." He pointed at the menu. "Ha-ha-ha." Seconds passed and then the oven stuck its tongue out at him. On it was a steaming tart. He swiped it into the air, caught it before it could fly across the room, then juggled it from hand to hand until it floated, cooling, in front of him. "We go way back, Natalya and I," he said at last. "A thick stick now, isn't she?"

There was nothing safe she could say about that.

"Your mother doesn't understand you, young Volochkova. She wants you to be a deep spacer, not a bucket monkey."

"She's never bothered to understand me."

"You had the tweak. You can hibernate, sleep your way to the stars. So why are you dancing on one foot?"

She snorted in derision. "Only losers hibernate. You wake up and nothing is the same. You lose everything."

He shook his head as if he didn't believe her. "You know, I was supposed to be a spacer. Zoom through the wormhole to the stars." He sailed a flat hand back and forth imitating a spaceship. "Your mother Natalya pronounced me unfit." He caught his tart and bit into it. "Thinner than water, I was back then." Mariska watched crumbs fly out of his mouth. More crud duty.

"That has nothing to do with me . . . sir." She realized that she had been forgetting to say it.

"One generation plants the tree, the next gets the shade." His laugh was like a grunt. "I met her when she wasn't much older than you."

Mariska jacked her guess about his age way, way up.

He stuffed the rest of the tart into his mouth and took his time chewing. "I'd say that you remind me of her, but then you *are* her." He held a finger to his lips, cutting off her objection. "What's my name, young Volochkova? No, not Beep."

"Lincoln Larrabee, sir." This was the longest conversation they'd had in months. She wished she knew how to end it.

"Good of you to know that." He considered the back of his hand for a moment. "So if we have to share the same sky, we should help each other. I'm worried about FiveFord."

She hadn't noticed anything odd about Richard, other than that he wouldn't take no for an answer. "Why?"

"Space blues. Apathy. Burn out. Maybe you've missed the signs, but he won't be worth a mushroom in another couple of weeks."

"But he's only nineteen."

"Do us a favor, would you? I mean, for the good of the ship and all." He poked his forefinger to her shoulder, as if she hadn't been paying attention. "Give FiveFord that ride he's been waiting for."

"What?"

"Go knee to knee with him. You're patched, aren't you? You can't get pregnant."

She couldn't believe he was saying this to her until she realized that he must have been sniffing. "Are you high?"

"Why?" When he winked at her, his eyelid fluttered. "Aren't you?"

"No."

"Then let's fix that." He fumbled at the breast pocket of his coverall, withdrew a sniffer and offered it to her.

She resisted the impulse to bat the thing out of his hand. "You're crazy." She wasn't about to *sir* him when he was twisted.

"What? It's just some harmless wizard. You get high. I've watched you."

"That's different." His lopsided grin infuriated her. She had accepted his bullying because she thought he was in control of things. "You're supposed to be responsible. You're wearing the override."

He peeled the card from his coverall and twirled it on its lanyard. "But I'm not on duty." He tucked it into the pocket where the sniffer had been.

"You're always on duty." She could hear her voice tremble. "What if something goes wrong?"

He waved the sniffer absently under his nose but did not squeeze off a dose. "You know why they call us monkeys?"

She closed her eyes, wishing this was just a nightmare she was having.

"It comes from first days," he said, "back in astronaut time. Everything was automatic then. The engineers didn't trust the old guys to do anything, not even think. Test animals don't make decisions and that's all the astronauts were. They used to say they were men sent to do monkeys' work."

She snapped the bungee against her wrist to keep from screaming. Beep was always saying things like that. She didn't know what he was talking about half the time.

"We're just along for the ride. Look here." He held up three fingers on his left hand. "Three wardrooms." He showed her all five fingers of his right. "Five of us. Crews used to need all that bunk space, but there was nothing for them to do. So they cut back. Everything is automatic now."

"But I'm shadowing you on the nav rack." Her voice was so small that she almost couldn't hear herself over Galley noise.

"Sure, so you can read it. But if we get a course wobble, can you calculate a new trajectory home?" He waited for her reply but there was nothing she could say. "You want Didit tweaking the magnetic containment field in the reactor?"

"I'd tell the computers to . . ."

"The computers are automatic. They don't need monkeys to override a busted routine."

"Then why are we here?"

"Crud duty? Fix lights? Fetch the ice?" He scratched under his arm and shrieked *hoo-hoo-hoo*.

When Mariska motioned for the sniffer, Beep grinned. She brought it to her face, cupped hands over it, and squeezed off a dose, which sparkled up her nose. The wizard sank to her lungs and streamed into her blood. Seconds later her brain was twinkling.

"Feel better?" said Beep.

For the moment, the wizard was more important than her fear and confusion. "We're not monkeys," she said. "We're remoras."

He cupped the sniffer to his nose. "Say again?" He pressed the trigger.

"Remoras. The fish that stick onto sharks and clean parasites off them."

When Beep burst out laughing, his sniffer shot across Galley and out into the spine. She chuckled too but it was only because she was seriously twisted.

"Yes, loosen your cheeks." He patted the packet where he'd put the override, as if to make sure he hadn't lost it too. "Why don't you think I like you?"

This also struck her as funny. "Because you don't." She giggled. "Sir."

"Look here." He pointed and the screen next to her woke up. She saw a grainy vid, obviously transcribed from a feed. On it was Mariska, except not. She was wearing a dress that was black and shiny and barely covered the crotch. The shoulders were bare except for the two skinny ribbons which kept the dress from falling off. She was wearing black strappy shoes with heels six centimeters long. The eyeshadow was purple.

She would never wear such ridiculous shoes. Or eyeshadow. "What is this?"

The Mariska on the screen tugged the dress up so that black lace panties peeked from beneath the hem. One of the ribbons slipped. The face's hungry expression stunned her.

"Stop it."

The scene shifted and another Mariska was perched in a golden cage. She was nearly naked this time. The arms fitted into outspread white wings like the ones they used in aviaries on the Moon. Feathers dangled from a golden chain around the waist but didn't conceal much. The chest horrified her. Although she was fifteen, she was still pathetically flat-chested—her mother's fault. But the figure on the screen would have needed at least a C-cup bra to cover the bare breasts. Someone—

something opened the door to the golden cage, but all she could see was a hand with long, pointed fingernails.

Beep froze the vid. "They go on from there," he said. "Much further on."

"They?" Mariska couldn't find her voice. "Where . . . who?"

"FiveFord has been making fake feeds where you do whatever he can imagine. It started on the outbound, but he wasn't obsessing until a couple of weeks ago. He makes one of you almost every day now. Sometimes he'll steal from his sleep time. I've seen this with shadows before." He gestured at the screen. "They make all kinds of deranged dream feeds, design inventions that could never work, study eight languages and learn none. I've got nothing against it in general, but sometimes they turn inward and swallow themselves. Then we have a problem."

Mariska was outraged. "You're as bad as he is." She reached past him and wiped the screen. "You're snooping this?"

"Fifteen-year-olds aren't exactly my favorite flavor, young Volochkova. I don't like this any more than you do." He fixed her with an accusing stare. "But tell me you've never created a fake feed before."

Of course she had. Not a lot, but more than a couple. She and her friend Grieg used to fake Mr. Holmgren, their ag teacher. They had him diddling Librarian Jane, the star from *Crosswhen* and President Kwa and Godzilla. But that had been funny. Somehow she didn't think Richard FiveForce was doing fakes of her for laughs.

"Make him stop. Right now."

Beep showed her his hands, palms up. "Feeds are thought, young Volochkova. You can't stop thoughts. And it's not as if he's sharing with anyone. He can't know that I've snooped his kink. Or that I gave you a sneak preview." Beep released the bungee from his dining stand. "Anyway, I just thought you might be interested." He pushed toward the spine. "You can make him stop any time you want to. Reality trumps fantasy."

"I'm not sleeping with that pervert."

He waved without looking back. "Your decision." He flew through the hatch.

Her borscht was cold and she had lost her appetite. She shoved the cup into the disposal chute and flew back to Wardroom C. She hesitated at the hatch. Dedit, Glint, and Richard were still linked into their common dream. Now she wondered exactly what they were sharing. After all, this was a feed that they had deliberately kept her from. What kinks might be happening under that imaginary striped tent? She shook her head. No, that was paranoid thinking. Glint had invited her to join them, after all. Still, she braced against the hatchway and then threw herself at her sleep closet before any of them noticed her.

She sealed herself in but didn't turn on the lights. Her mind was churning as she floated in the darkness. Why had Natalya Volochkova contacted Beep? Did her mother know how he had been tormenting her? Would whatever she told him make any difference? Mariska doubted it. She decided to resent her mother's interference, even if things did somehow get better. The whole point of signing on for an asteroid run was to escape the controlling bitch. Then Mariska got stuck thinking about what Beep had said. How could he ever have believed she'd let Richard touch her after she'd seen those fakes?

All the grown-ups in her life were out of control.

The longer she spent in the dark, the lonelier she felt. She had no friends on the *Shining Legend*. The only friends she did have were back on the Moon, forty million kilometers away.

And Jak had left her.

She woke up the screen and drilled down through the menus until she came to her feed editor. She linked it to the encrypted partition where she kept her secret shrine to Jak. She didn't give a damn if Beep was snooping. There was a specific feed she

had created of things she remembered about the Muoi pool. She and Jak used to swim laps there together; she found a sequence where they were sitting on the edge, their feet dangling in the water. In real life she had been wearing her aquablade swimsuit but now she changed it to the two piece that she never liked because it made her look like a little girl. In real life, they had talked about sharing a closet on a starship, maybe even the famous *Gorshkov*, assuming that her mother wouldn't be aboard. In her fake, there was no talk of the future. She scripted him to play with the waistband of her suit, which she had let him do sometimes. She brushed a kiss across his shoulder, licking the beads of water which clung to his bare skin. The shouts of kids playing in the shallow end bounced off the low ceiling of the pool's cave. Jak slipped his three middle fingers slowly down the bumps of her spine and then just inside her suit, which she had never let him do. The fake Mariska closed her eyes. The real Mariska sucked in a ragged breath. She could see her imaginary Jak getting hard under his swimsuit. But suddenly she was sad. Too sad. She knew there would be tears if she pushed the fake any further. And none of them, not Jak or Beep or Richard or the Jingchus or her mother, was worth crying over.

The *Shining Legend* was possibly the ugliest spaceship in SinoStar's fleet. At the back end of its long spine was a heavily shielded antimatter drive. Forward of the reactor was a skirt of battered cargo buckets. Outbound, these had carried agro and manufactured goods destined for *Rising Dragon* station. Inbound, they contained unprocessed nickel-iron ore and dirty chunks of ice from SinoStar's asteroid mines. Next to the buckets were storage mods. Further upspine, a hodgepodge of crew mods had accreted over the years: Command, Galley, Service, Health, Rec, and Wardrooms A, B, and C. Three crawlerbots, nicknamed Apple, Banana, and Cherry, wandered the various hulls of the ship checking for micrometeor damage. A watchbot named Eye flew alongside, held by a magnetic tether. Their asteroid bucket looked to Mariska like a pile of junk that had fallen out of a closet.

The ship ran on antimatter and water. Electrolytic cells dissociated hydrogen and oxygen from ice that had been treated back on *Sweetspot*. The hydrogen was used by the positron reactor for thrust, the oxygen refreshed the atmosphere in the crew's quarters. Unlike a starship like the *Gorshkov*, the *Shining Legend* was not a closed system. Scrubbers removed carbon dioxide from the atmosphere and vented it to space. The cells replaced the oxygen lost in this process and therefore required a constant supply of water. When reserves ran low, the crew fetched blocks of the treated ice, stored on loading porches outside the storage mods.

Qualifying in cargo was the last step before a shadow could advance to senior crew; it was the one job where the computers needed human help. Both Richard and Glint were shadowing cargo on this run. Glint had failed cargo once already but she'd been doing better this time. They used the crawlerbots to load, store, and offload material at either end of the run and bring in the ice while the ship was in transit. In the old days, cargo monkeys used to suit up and actually drive the bots, but now everything was handled remotely from Command.

Throughout the run, Richard, Glint, and Beep would gather at the cargo rack in Command to divert the bots from their normal rounds. But having people look over her shoulder made Glint nervous, especially after she had failed cargo. Back at *Rising Dragon* station she had put several new dents in the buckets while loading ore. Her problem was that when she got flustered, she lost track of where the edges of her bots were. She was fine as long as she didn't actually see anyone, so Richard and Beep had taken to monitoring her from a distance when she took her turn on the rack.

So Mariska was surprised when Richard flew into the Rec mod.

"Isn't Glint on ice duty today?" She was working out on the treadmill.

"She is." Richard maneuvered himself into the weight machine and buckled in.

"Aren't you supposed to be watching her?"

"I am."

"But you're not."

"No." He smiled at no one in particular as he adjusted the arms of the machine. "I'd rather be here with you." He set the resistance to four kilograms for curls.

"Richard."

He laughed. "Beep told me to take a break. He's watching her but she hasn't messed up since *Dragon*. Ninety-seven days and counting. She's so good now that she's boring."

Mariska had logged just three kilometers and had seven more to go. At least a half hour before she finished her workout and could escape him. She pulled her towel from its clip and wiped her face. Sweat was another thing she hated about space. She missed swimming.

How was she supposed to act around Richard anyway? She couldn't help but wonder what was going on behind those wide brown eyes when he looked at her. Probably imagining new kinks. But with more than a hundred days left in the run, she couldn't afford to confront him. Feuds in space tended to take up a lot of room. On a ship the size of the *Shining Legend*, that would be trouble. But she wasn't about to pretend that she was comfortable being alone with him.

After he finished the curls, he did shoulder squats. The weight machine clanked and wheezed and its gyros hummed. The more reps he did, the more the veins stood out at his temples. Richard was proud of his foolish muscles and worked hard to keep them. Now he was grunting from the effort. It was kind of disgusting. He told her once when they were high on wizard that he'd be like some kind of superhero if he ever visited the Moon. She'd tried not to laugh at his ignorance. There was hardly any crime at Haworth. The Moon had no need of another Lord Danger.

"You haven't been very nice to me lately." He was smiling, his cheeks flushed from his workout. "What did I do wrong?"

"Nothing." She wasn't going to think feathers and golden chains.

"Somehow you make nothing sound an awful lot like something." He waited for her to answer; she let him wait. "Okay." He reconfigured the weight machine for squat thrusts. "*One. Two.*" The count exploded out of him when he kicked his legs back. "*Three. Four. Five.*" He was so strong that he overpowered the gyro. When the apparatus banged against the wall, she could feel the entire mod shake. It was a point of pride with Richard that he could do this. "*Thirteen. Fourteen. Fifteen.*" No one else aboard could. Sometimes she could feel him working out as far away as Galley.

Richard stopped at twenty, sucking air in huge gulps. Mariska felt a familiar tingle; since he was out of breath and couldn't speak, he was offering her his feed.

"No thanks," she said. She woke up the screen in front of them, picked a 3D channel at random. It was old sci-fi from the previous century: a space captain in a ridiculously tight uniform was sitting on a shiny chair on the bridge of some fairy tale spaceship. The camera pulled back. Everyone on the screen was sitting on chairs.

There were no chairs on the *Shining Legend*.

"Artificial gravity." Richard climbed on the stationary bike and started peddling. "I could use some of that just now."

Mariska ignored him and pretended interest in the 3D.

Now the people on the bridge were staring at a viewscreen showing another silly spaceship. In an external shot, one ship veered sharply away from the other, narrowly avoiding a collision. Back on the bridge, the crew were all leaning to their left.

"Sorry," said Richard, "but they'd all be puddles of jelly on the wall." He shook his head. "People on Earth still watch this stuff."

The counter on the treadmill clicked over to ten kilometers. "Really?" Mariska slowed her pace to a walk. Her legs felt pleasantly heavy.

"People on Earth are stupid. They don't know anything about living in space. That's why I left."

"There are stupid people everywhere." She unbungeed herself. "The trick is not to let them do anything stupid to you."

Richard shot her a quizzical look. "Meaning?"

"Meaning have a nice workout, Richard." She said, and kicked out of Rec.

Mariska had never had a feed from her mother before. At first she wasn't sure that she should accept it. Natalya Volochkova was a fossil like Beep. Her generation used feeds only for the most intimate sort of contact, which was the last thing Mariska wanted. But this feed had been the only message from her mother for several days now. Mariska was curious to know why she had stopped.

=Moya radost, you know this isn't what I wanted for us.= Natalya Volochkova was seated in a plastic chair in a spare room that was clearly not at their home in Hawthorth. The focus was tight, the light harsh. Mariska tried to zoom out but the feed refused her command. There was a stale papery smell to the room that made Mariska think that she might be looking at a museum or a library. Some kind of storage area. *"You think you are doing what is right. Maybe, but where you are now is not where you will be when you grow up."*

"I am grown up!" Of course, her mother couldn't hear her.

=I know you have been suffering, but things will get better.= There was a weight to her voice that Mariska had never heard before. *=I promise.=*

"Just stop your interfering, bitch."

=I'm on Mars just now, but I won't be staying. I don't know if you've heard, but we're commissioning a new starship, the Natividad.=

Mariska felt her throat tightening.

=It's been more than a year since I've heard anything from you. I write, you are silent. At least I know that you are safe. I'm sorry if you're unhappy.= She was shocked to see her mother's eyes shine with tears. *=I wish I knew what you're thinking just now. But if you really want me out of your life, then I must accept that. I've been offered a place on the Natividad. I had hoped to bring you with me, but . . . =*

"Go then." Mariska closed her mind. The bare room and her sad mother disappeared. "Leave." She deleted the feed.

Mariska tried to relax into the delicate embrace of her closet's sleep net but her thoughts kept tumbling over one another. Mariska wondered at how little she understood herself. This was exactly what she wanted. Natalya Volochkova was finally leaving her alone.

So why did she feel betrayed?

Glint's scream shook the walls of Galley fifteen meters away. Mariska choked on a mouthful of butterscotch pudding. When she poked her head out of the hatch Beep almost tore it off as he shot upspine toward Command. She followed at a distance. Ahead she saw Richard desperately trying to pull Glint downspine. Glint flailed at him like a drowning swimmer.

"What?" Beep shouted over her shrieking.

"Seda . . . tive," said Richard. Glint spun in his grasp and they crashed against the deck of the spine. "Ooof. Glint, no."

"What?" said Beep.

"Something about the ice."

It was a measure of Glint's panic that she gave musclebound Richard all he could

handle. But when he finally yanked her arms behind her back, she slumped forward. Her screams melted into sobs.

"You." Beep pushed Mariska at them. "Help." He flew into Command.

They wrangled her downspine to Health and strapped her to an examining table. Richard tried to comfort her while Mariska tapped at the med rack and charged a face mask with somapal. When Richard pressed it to her nose and mouth, Glint groaned and went limp.

They stared at each other across the table. Richard was breathing hard enough for three people.

"What about the ice?" said Mariska.

"Don't know." He shook his head. "There wasn't time."

"Let's find out." He followed her out.

"Where?" Beep muttered to himself as his fingers danced over screens on the cargo rack. "Where, where, where?" He was barefoot and held himself still by curling his toes into the deck burrs. His hair was mussed. He looked like he had just woken up; she thought he might be twisted. "Damn it, where?" Mariska had never noticed how long Beep's toes were. There was fine black hair on the joints.

He stabbed at the rack. The screens that had been showing Banana's view switched to Eye flying next to the *Shining Legend*. He panned up and down the ship. Mariska gasped when Eye looked past the porch on Storage D, where their reserves of treated ice were supposed to be.

It was empty. Behind her, Richard made a strangled noise.

"Come on. Where?" Now Beep turned Eye away from the ship to scan the nearby space.

Mariska tore herself away from cargo to access the nav rack. "Time cluster," she said.

It was 04:33:04 on 15 July 2163. The mission was in its three hundred and nineteenth standard day. The ship had completed its mid-course switchover from acceleration and was now seven days, two hours, and eleven minutes into deceleration toward home. Acquisition of the approach signal for *Sweetspot* station would occur in one hundred and five days, eighteen hours, and twenty-one minutes.

"There."

The ship's reaction mass reserves of hydrogen would permit braking for just sixty-eight more days. The inventory of ice finished updating. It would be sufficient for forty-seven days of oxygen renewal. The screen began to flash red.

Eyes wide with terror, Mariska glanced across Command at Eye's view. Two blue-white blocks the size of lunar rovers were tumbling sedately away from them toward the blaze of stars.

"The problem isn't fuel," said Mariska. "If they start a ship soon enough, it can match trajectories with us. Then we offload some replacement ice and finish our deceleration."

"Except there won't be any *we*." Glint looked hollow. "We'll suffocate by then."

"Not necessarily." Richard was trying to convince himself. "Not at all."

"We've got tons of ice back in the buckets," said Didit. "Asteroid ice. Tons."

The four of them had gathered in Wardroom C while Beep was in Command talking to experts at *Sweetspot* station. No one wanted to be alone, but being together and seeing how scared they all were made waiting for Beep an agony. There were long silences, punctuated either by hopeful declarations or sniffles. They all cried some, Glint the most. Mariska was surprised at how little she cried. She was sure she was going to die.

"Such an idiot," Glint rubbed the heels of her hands against her temples. "The stupidest damn stupidhead in all of space."

Didit poked her listlessly. "Shut up, Glint."

"It's my fault too," said Richard, not for the first time. "Should've been watching you. That's what backup is for. More eyes, no surprise."

Twenty hours before, while retrieving a block of treated ice, Glint had bumped the the Cherry crawler against the side of the open airlock. The ship's computers had interpreted this as a potential failure and had triggered lockdown protocol. Glint hadn't wanted yet another screwup on her record, so she had gunned Cherry into the airlock just before the doors slid shut. Once it was safely inside, she had canceled the lockdown. It was, after all, a false alarm. The shipbrain would still record the incident, but an anomaly without consequences wouldn't get Glint in any trouble.

Only now the consequences were dire. Normally, Glint would have instructed Cherry just to drop the ice and leave the airlock. Then, after checking that the primary ice restraints on the storage porch had re-engaged, it would have resumed its automated search for micrometeorite damage. But the crawler was on the wrong side of the doors and its restraint routine had been interrupted by the lockdown. This wouldn't have been a problem had not the secondary restraint, a sheet of nanofabric that covered the ice reserves, failed. The two remaining blocks had somehow nudged out from underneath and taken off. Simulations showed that some kind of vibration could have set the ice in motion. On a ship as old as the *Shining Legend*, shakes and rattles were to be expected.

Mariska guessed that the ice had come loose when Richard banged the weight machine against the wall of Rec. From the way he avoided her gaze, she guessed he thought so too. Was that why he kept apologizing for leaving Glint to fetch the ice?

What everyone was wondering, although no one dared say it aloud yet, was how Beep could have let Glint trash the safety protocols so totally. He'd told Richard that he'd watch her. Had he had his nose in a sniffer?

"Here it is," said Mariska. "That data feed I was looking for."

=Untreated water is a poor conductor of electricity, impeding the reaction in electrolytic cells so that the dissociation of hydrogen and oxygen occurs very slowly. Typically the addition of salt electrolytes will increase the conductivity of water as much as a millionfold. Using water treated for enhanced conductivity enables SinoStar's advanced electrolytic cells to achieve efficiencies of between 50 percent and 70 percent=

"So salt." Didit brightened. "We get ice from the buckets and just add salt."

"We don't have that kind of salt," Glint said wearily. "And we sure as hell don't have enough of it."

"Hey, all the feed said was that the cells would be slow." Didit wasn't giving up. "Slow is better than nothing." She looked to Mariska for confirmation.

"Plus raw asteroid ice is full of dust and crap. It'll just clog the cells." Glint's chin quivered but she held the tears back. "Face it, we're slagged."

"Shut up, Glint."

"There's a way," said Richard. "There has got to be a way."

Nobody bothered to agree or disagree. The silence stretched.

"Buck up, monkeys." Beep appeared at the hatchway. "We haven't fallen out of our tree yet. Everyone up to Command and I'll tell you the plan."

The word *plan* seemed to lift the four teenagers. Didit reached over and gave Glint's hair a sisterly pull. "Told you." As they followed him upspine, Mariska caught herself grinning with relief. The brains at *Sweetspot* must have seen something she hadn't.

Beep waited until they had settled themselves around the cargo rack. One of the screens showed Banana crawler parked in front of Storage D. "So we use the crawlers to fetch raw ice from the buckets. We chip off chunks and boil all the impurities out."

Mariska knew that couldn't be right. "How do we do that?" she said. "We have no way to capture—"

"Volochkova, did I ask you to speak?"

"No."

"No, *what*?" His voice was cutting.

"No, sir." She noticed that the skin of his face seemed stretched too tight.

"Leave your ignorance in your pockets. All of you." He let rebuke hang in the air for a long moment. "Next we start collecting leftover salts from the electrolytic cells and stop dumping the stuff into space. We add it to the purified water we're going to make. They're telling me that using fresh water slows down the electrolytic cells. It's like watching toenails grow."

"We know that," said Didit. "Mariska found a feed."

"We've got enough treated ice . . ." he glanced over at the nav rack. ". . . for forty-seven days. Let's see how much salt we can save by then. Okay, monkeys? Trouble is knocking but we're not letting it in. I'll suit up and ride Banana back to the buckets.

"While the reactor is at cruising power?" Too late, Mariska realized that she had spoken without permission. This time Beep was more forgiving.

"I've damped it down." He nodded at the energy rack. "Besides, how else am I going to sort ice from ore?" His grin was bleak. "But thanks for your concern, young Volochkova. I do realize that radiation isn't my friend." Didit laughed nervously. The others glared at Mariska as if she were trying to kill them: They were fine with letting Beep risk the exposure. After all, he was senior monkey.

"So, FiveFord and Glint, get Apple and Cherry started for the porch. Didit, lower the air pressure in the airlock to four tenths of a bar." He pushed off and floated over them. "Young Volochkova, you come with me to Service and help prep the suit. That way you can wash all those worries about my safety."

On their way downspine, Beep caught himself at the hatch to Wardroom A. "I need my coolwear." He waved her on. "Power my suit up and start the checklist. I'll be down in two kicks."

There were a dozen spacesuits bungeed to the walls of Service. Most of them hadn't been touched in years. As part of their cargo chores, however, Glint and Richard had powered five of them up regularly during the run to make sure they still worked. They were all low pressure, which meant Beep needed to prebreathe oxygen before the spacewalk to keep from getting the bends. Since Beep had been aboard the *Shining Legend* for more than a decade, he had a custom-fitted suit. Mariska opened it, plugged its battery cord into the fastcharge outlet, and started its power-on self test. She was moving through the rest of the checklist when Beep flew in.

He had the hood of his coolwear pulled back, but otherwise it covered his entire body. The white of the fabric made the deep flush on Beep's face stand out. When Richard exerted himself, he just turned red. Beep was practically purple and was sucking in huge gulps of air.

Mariska could see beads of sweat at his hairline. "Beep," she said, "tell me you're not high."

"Borrowing some courage is all." He landed in front of the oxygen bar. "And don't be warming my ears about it." He clapped the mask over his face, and glared at her.

Back in Command, she had suspected that something was wrong with him. Now she was certain of it. But there was nothing she could do, so she went back to the checklist. After fifteen minutes, he pulled the mask away and thrust the override card at her. "Hold this while I suit up."

She took it and he raised his arms. Mariska grasped his waist. She could feel the

pulse of the coolant in his coolwear, which was designed to keep the spacesuit from overheating. She raised him over her head and jiggled him through the suit's opening.

He fitted his arms into the sleeves but then paused. "How many oxygen bottles do I have?"

"Two," she said. "Checklist calls for two, primary and backup." She didn't understand why he was asking. Two four-thousand cubic centimeter bottles had been the standard design spec since before she was born.

"How many are left?"

She shrugged.

"Go look."

Mystified, she opened the locker, counted thirty-seven filled and fourteen empty bottles. She reported this.

"Worth knowing." He finished sealing himself into the suit. "Worth remembering. So, let's dance."

She handed him his helmet to carry, unbungeed him from the wall, and tugged on the suit's tether. He bobbed behind her like a man-sized balloon as she pulled him downspine to Storage D.

The air was already thinning in the airlock and it felt colder than it actually was. Beep turned on his boot magnets, enabling him to stand upright in front of her. She was expecting him to fit the helmet onto the suit's collar so she could lock it down. He surprised her.

"Not yet, young Volochkova. Time for a quick chat. You have the override?"

She offered it to him. He shook his head.

"I'm leaving it with you for now. That means you're in charge in case anything spills. I am thinking that you can make the hard decisions. At least, Natalya could."

Mariska wasn't her mother; for some reason Beep still wouldn't accept that. "But Richard is senior to me. And Glint . . ."

He snorted. "FiveFord could drown in a glass of water. He should go back to Earth and dig holes with all those muscles. Only he'd probably fall in. And Glint . . . poor Glint is broken." He pointed at the override. "You show them the override and tell them I said."

"What is this, Beep?" She tucked it into the pocket of her coverall.

"This?" He smirked. "Just a little walk. *La-la-la*. But before I go . . . Remember the fakes I showed you? Ah, I thought you might. So that was just a little joke. The fakes never existed, or at least, you saw all there was of them. All that I made."

"You?"

"I like to stir the soup, Natalya." His laugh had a chemical edge. "The runs are so damn long, too damn boring. Hard to stay interested. So we play tricks. It's tradition, how bucket monkeys keep from going crazy."

Mariska felt suddenly dizzy in the thin air, afraid to say what she was thinking. "Why tell me this now?"

"I'd say it was conscience, if I had one." His mouth tightened. He raised the helmet over his head and stared into it. "Time to go."

"Wait." She caught at the front of his suit. "That was a lie about the raw ice, wasn't it? And the leftover salt—that can't possibly work. And you—you're going to get a crazy dose of radiation. . . ."

"One less mouth to breathe." Beep stuck his chin out at her. "You'll know what to do when the time comes." He lowered the helmet onto his head. She wanted to hammer on it, get him to stop, make all of this go away. Instead she locked it to his suit.

By the time she got back to Command, Beep had already turned Banana downspine and was accelerating toward the buckets. The others watched the screen that showed the crawler's camera, but Mariska was fixed on the overview that the Eye saw.

"He's going kind of fast." Richard was beginning to suspect what Mariska already knew.

"Then tell him to slow down," said Didit.

Beep must have turned his boot magnets off. On the Eye, she saw that they had come off the racing crawler and his only contact was the joystick which he grasped with both hands. His legs swung upward relative to the surface of the ship until he was upside down. He looked like a gymnast doing a handstand as the crawler hurtled toward the buckets.

"Call him," said Richard. "Glint?"

"Doesn't work."

"It's dead. He must have disabled it."

Glint's hand trembled as she pointed at the Eye's screen. Didit was sobbing.

"Override it."

"With what?"

"Stop him."

At the exact moment the crawler crashed into the bucket, Beep released his hold. His momentum flung him clear of the *Shining Legend*, tumbling helmet over boot. They watched as he applied gas thrusters to correct his wild rotation.

They watched him spread his arms to embrace the darkness as he shot away from the ship.

They watched in shock as he faded to a speck of space debris and was gone.

"Still, you could have stopped him," said Richard.

"How?" Mariska was tired of their accusations. The weight of what she had done—and not done—was crushing her.

"You could have."

Glint was no help. She had kicked her slippers free of the deck burrs and was floating aimlessly around Command. She seemed not to notice when she bumped into things.

"But we still have ice," said Didit. "Who's going to fetch the ice?"

"Nobody." Glint's head lolled backward. "It's just like Mariska said. A fairy tale."

"What does she know?" Didit's hands curled into fists; she was ready to punch someone. "Maybe she made Beep do it."

"He gave her the override."

The four of them considered this fact in silence. Richard ran a finger down the edge of the cargo rack. It came away with a smudge of ugly blue. "The crud is back," he said to no one in particular.

"It's her first run," said Didit. "Why her?"

Glint cackled. "Because he hated her?"

"We should contact *Sweetspot*. Tell them what's happening here." Richard nodded at the override hanging around Mariska's neck. "Maybe we should enable comm now?"

Mariska brought up the comm cluster and flashed the override at the nav rack. Then she paused, considering. "Close communication," she said. "Time?"

"Sure," said Glint. "Let's check the doomsday clock."

Didit turned on her and shouted. "Shut the fuck up, Glint."

The screen still flashed red. It was 08:14:56 on 17 July 2163. The mission was in its three hundred and eleventh standard day. They were eight days, twenty-two hours, and six minutes into deceleration. Acquisition of the approach signal for *Sweetspot* station would occur in one hundred days, twenty-three hours, and fifty-one minutes.

"There," said Mariska. "See?"

The ship's reaction mass reserves of hydrogen would permit braking for eighty-nine more days. The ice inventory would supply be sufficient for seventy-three days of oxygen renewal.

"See what?" said Richard.

"We gained twenty-six days." Mariska felt as if she were rising out of herself and looking down at them from the Eye. "Beep gave us twenty-six more days."

"So what?" Now Glint shouted. "Seventy-three from one hundred. A month of no air."

"Right," said Mariska. "But if we decrease demand again, we buy even more time."

"Decrease demand?" Fear filled Richard's voice.

"And the rescue ship—they don't have to wait until we get all the way to *Sweetspot*. They can come out to meet us. . . ."

"Someone else sacrifices?" said Didit. "That's your plan?"

"Nobody has to sacrifice." She pushed herself over to the environment rack. "Somebody just has to stop breathing."

"Oh, great," said Glint.

"Who?" said Richard.

Mariska's mind was racing as she brought up the crew's med files. It could work. It had to work.

It was just above freezing in the mod; Mariska was pleased. The inner shell of the *Shining Legend* was fitted with heating strips to keep the bitter cold of space from penetrating crew areas. But Mariska had disabled the shell heaters in Service as part of her plan. She faced Richard as he gripped her waist in his strong hands and lifted her. The Jingchu sisters stood together to one side, wisps of their breath curling into the chill. They were holding hands, which was a good sign. Mariska was worried about Glint's mood swings. Sometimes it seemed as if she resented getting this chance to survive. She just wanted to have the dying over with. But Didit kept pulling her back from despair.

Richard was concentrating so hard on lowering her into the suit that she couldn't help herself. She touched his neck. He glanced up, about to apologize, but she winked at him. "Permission to nap?" She tugged the lanyard of the override around his neck. "Sir?"

He grinned. "Permission granted."

She shivered as he sealed her into the suit. Was this the last time anyone would ever touch her? Bad thought. No bad thoughts. "Ninety-six days," she said. "We can do this, right?"

Richard and Didit answered, "Right." Glint just glared; she still thought that Mariska was abandoning them.

"No chores, understand? Let the crud run wild. And sleep as much as you can."

"We will," said Didit.

"Just remember to wake up when it's time to swap my bottles."

Richard handed her the helmet. "Don't worry."

She tried to think of what else she could say to keep from saying goodbye. "This is it, then." Mariska could feel her throat closing; she didn't want them to see how scared she was. "Okay monkeys, out of here before you freeze to death." She lowered the helmet to the collar and Richard locked it to the spacesuit. She felt a tear pool at the corner of her eye, but the helmet's tinted faceplate hid it nicely.

So, how was she going to do this? She didn't really know how to trigger the hibernation response. The one time she had done it had been five years ago. That had been the first time she had tried to escape from her mother, by running away three years into the future. She had been furious at Natalya Volochkova then. Had that had anything to do with it? She was still mad at her, but not as much as she had been. She tried working up some hate for Beep but all she could think about were his two bottles of oxygen. Six hours, and then? Maybe she should get mad at herself for signing on to crew the *Shining Legend*. Bucket monkey—the worst job in space.

And now she might die a bucket monkey. Bad thought. No bad thoughts. She did the math again while she waited for something to happen. She had thirty-seven bottles. Each could provide three hours of oxygen, plus or minus ninety seconds. Altogether, a hundred and eleven hours. *Sweetspot* claimed the soonest the rescue ship could rendezvous was ninety-five days, plus or minus maybe half a day. Altogether, two thousand, two hundred, and eighty hours. Plus or minus. But if she hibernated she might reduce her oxygen intake to as low as 4 percent of normal. Four percent of two thousand, two hundred and eighty hours was ninety-one hours. That meant she only needed ninety-one hours of oxygen and had a hundred and eleven hours bottled. Plus or minus. Was 4 percent possible? She didn't know. The first and only time she had hibernated it hadn't been in a hibernation pod with the proper euthermic arousal protocols. She had induced it by sheer willpower in her bed on Haworth. And at room temperature. They said afterward that she was crazy to try it, lucky to survive. But this time she had the cold on her side. Four percent. Ninety-one hours.

And if 5 percent was the best she could do? Bad thought. No bad thoughts.

Mariska wasn't as big as Beep, and subtracting her consumption from the load on the electrolytic cells only gained the crew another twenty-four days. But twenty-four and seventy-two would stretch the oxygen resupply reserve to ninety-six days. Which was exactly when they would rendezvous with the rescue ship from Mars.

Plus or minus.

Mariska felt good. Cold, but good. The numbers added up. They could do this. All she had to do was close her eyes and stop breathing so much.

Mariska's blood was pounding. Her fingers throbbed and it felt as if someone kept clapping hands over her ears. She thought her heart might explode. Time to open her eyes.

Storage. She knew this was Storage. But where was Storage? Someplace full of floating bottles. And Richard. His name was FiveFord and he could drown in a glass of water. She could see that he wasn't very smart, sleeping in Storage when he was supposed to be doing something. Something. She was gasping and her throat was sandpaper. She thought she should go back to sleep. Or die. But then there were other people in Storage. People in spacesuits. One of them pushed Richard aside and he crashed into a wall. Mariska wished he would wake up. She blinked because her eyes were filling with smoke. Then Spacesuit Person was in front of her. Shaking her. This must be the rescue. *Yay!* She couldn't tell who it was at first because the helmet had a mirror face. Then she saw the name. Black letters below the collar. *Volochkova*. That was her name. Mariska giggled. Was she rescuing herself? Why didn't Richard FiveFord get up? This was what they had been waiting for.

Xu Jingchu didn't look much like Didit or Glint to Mariska. She was old and her life had tugged at her. She was Earthborn, a head taller than Mariska, and her loose muscles and spindly posture made her look as if she were suffering from some wasting sickness.

And she was grieving.

"When Glint said that she wanted to make one more run, I swear I fought her," said Xu Jingchu. "I wanted her to learn the business, not qualify as senior crew." The old woman had Mariska's hand in hers. "I'd already arranged for her to work at *Sweetspot*, move on to the materials processing division. But she insisted on one more chance at cargo. Why?" She kept rubbing her finger across Mariska's palm. "I don't even shop for myself anymore, so why should she be fetching ice and loading ore into buckets?"

Mariska was exhausted and just wanted Xu Jingchu to go away. The old woman was no longer talking to her—she had been arguing with her dead daughter for the

last few minutes. Mariska let her head fall back on the pillow of the hospital bed, hoping that her mother would pick up on the signal.

"She was proud," said Natalya Volochkova. "She wanted to do her best."

"Proud." Jingchu's expression was bitter. "Of dying for nothing?"

"Glint and Didit were very brave." Natalya Volochkova stood up. "They fought right to the end. They just ran out of time."

"Yes." Xu Jingchu squeezed Mariska's hand and let go. "Yes, they were good girls." She stood too. "I appreciate everything you did, Dr. Volochkova. I know you took extraordinary measures to save them."

"I couldn't have done anything without you."

She bowed in acknowledgement. "As you say, time ran out. Thank you, Mariska, for seeing me. I hope we can meet again under more pleasant circumstances." She gathered herself to leave.

"Excuse me," said Mariska. "But did Glint ever visit Earth?"

Xu Jingchu looked puzzled. "No, not really. Of course, the clinic was in Chicago so they were born there. But they were tweaked for space. Staying in Earth gravity would've been agony." Her expression darkened. "Why?"

"I just wondered if she had ever seen the sky."

"The sky?"

"Mariska is still not herself." Her mother rested a hand on Xu Jingchu's arm. "We came close to losing her too."

She nodded and a wisp of white hair fell across her forehead. "Of course." She let herself be led away.

Natalya Volochkova had been right. It had been a mistake to see Xu Jingchu so soon. And now her mother had rescued her from the sad old woman. Mariska was still getting used to the idea that Natalya Volochkova might not be the enemy. Had she come back into the room then, Mariska would have tried to thank her. But her mother was still trying not to push herself on Mariska.

Mariska had learned meditation as part of her spacer training, and her doctors kept urging her to try it now, find a silence in herself that would give her peace. But what had happened still roared through her mind. The *Shining Legend's* shipbrain had captured the crew's last moments. Glint and Didit had died in each other's arms in the wardroom, but Richard, the strongest of them, had muscled his way to her even as the oxygen levels in his blood crashed. He had died changing her last bottle. She couldn't imagine being that brave. She knew she hadn't earned that kind of devotion.

To escape these dark thoughts, she called up a feed she had been working on.

A dusty dirt road cut across a grassy field. The sky above was the deep blue of the oceans as seen from space. It had a delicious weight, as if it had been filled with more air than any sky had ever been. Mariska stood on the side of the road as a parade of animals passed. Cows and polar bears and elephants and two zebras wearing top hats and a whale with squat legs. Didit, Glint, and Richard drove up in a bathtub filled with water. Didit waved.

=We set up a tent.=

Mariska looked up. =Nice sky.=

*Glint smiled. =Not too blue?=
=Perfect.=*

Richard leaned out of the bathtub, reaching for Mariska. She stepped back.

*=Coming?=
She shook her head. =Not yet.=*

*=Want us to wait?=
She shook her head again. Richard pulled his arm back into the bathtub and*

tapped Didit on the shoulder.

Mariska watched them go. In the distance she could hear the tootle of a pipe organ. ○

LIBERTARIAN RUSSIA

Michael Swanwick

Michael Swanwick's incorrigible con-men extraordinaire, Darger & Surplus, whose exploits have been chronicled in "The Dog Said Bow-Wow" (October/November 2001), "The Little Cat Laughed to See Such Sport" (October/November 2002), and "Girls and Boys, Come Out to Play" (July 2005), will be appearing in *Dancing With Bears*—a novel about their adventures in Post-utopian Russia (Nightshade Books, May 2011). Michael's latest short story introduces a new and rather different adventurer living in a similar milieu. "Libertarian Russia" contains some brief scenes that may be disturbing to some readers.

Miles and weeks passed under the wheels of Victor's motorcycle. Sometime during the day he would stop at a peasant farmstead and buy food to cook over a campfire for supper. At night he slept under the stars with old cowboy movies playing in his head. In no particular hurry he wove through the Urals on twisting backcountry roads, and somewhere along the way crossed over the border out of Europe and into Asia. He made a wide detour around Yekaterinburg, where the density of population brought government interference in the private lives of its citizens up almost to Moscow levels, and then cut back again to regain the laughably primitive transcontinental highway. He was passing through the drab ruins of an industrial district at the edge of the city when a woman in thigh-high boots raised her hand to hail him, the way they did out here in the sticks where every driver was a potential taxi to be bought for small change.

Ordinarily, Victor wouldn't have stopped. But in addition to the boots, the woman wore leopard-print hot pants and a fashionably puffy red jacket, tight about the waist and broad at the shoulders, which opened to reveal the tops of her breasts, like two pomegranates proffered on a plate. A vinyl backpack crouched on the ground by her feet. She looked like she'd just stepped down from a billboard. She looked like serious trouble.

It had been a long time since he'd had any serious trouble. Victor pulled to a stop. "Going east?" the woman said.

"Yeah."

She glanced down at the scattering of pins on his kevleather jacket—politicians who never got elected, causes that were never won—and her crimson lips quirked in the smallest of smiles. "Libertarianski, eh? You do realize that there's no such

thing as a libertarian Russian? It's like a gentle tiger or an honest cop—a contradiction in terms."

Victor shrugged. "And yet, here I am."

"So you think." Suddenly all business, the woman said, "I'll blow you if you take me with you."

For a second Victor's mind went blank. Then he said, "Actually, I might be going a long way. Across Siberia. I might not stop until I reach the Pacific."

"Okay, then. Once a day, so long as I'm with you. Deal?"

"Deal."

Victor reconfigured the back of his bike to give it a pillion and an extra rack for her backpack and fattened the tires to compensate for her weight. She climbed on behind him, and off they went.

At sunset, they stopped and made camp in a scrub pine forest, behind the ruins of a Government Auto Inspection station. After they'd set up their pop tents (hers was the size of her fist when she took it from her knapsack but assembled itself into something almost palatial; his was no larger than he needed) and built the cookfire, she paid him for the day's ride. Then, as he cut up the chicken he'd bought earlier, they talked.

"You never told me your name," Victor said.

"Svetlana."

"Just Svetlana?"

"Yes."

"No patronymic?"

"No. Just Svetlana. And you?"

"Victor Pelevin."

Svetlana laughed derisively. "Oh, come on!"

"He's my grandfather," Victor explained. Then, when the scorn failed to leave her face, "Well, spiritually, anyway. I've read all his books I don't know how many times. They shaped me."

"I prefer *The Master and Margarita*. Not the book, of course. The video. But I can't say it shaped me. So, let me guess. You're on the great Russian road trip. Looking to find the real Russia, old Russia, Mother Russia, the Russia of the heart. Eh?"

"Not me. I've already found what I'm looking for—Libertarian Russia. Right here, where we are." Victor finished with the chicken, and began cutting up the vegetables. It would take a while for the fire to die down to coals, but when it was ready, he'd roast the vegetables and chicken together on spits, shish kabob style.

"Now that you've found it, what are you going to do with it?"

"Nothing. Wander around. Live here. Whatever." He began assembling the kabobs. "You see, after the Depopulation, there just weren't the resources anymore for the government to police the largest country in the world with the sort of control they were used to. So instead of easing up on the people, they decided to concentrate their power in a handful of industrial and mercantile centers, port cities, and the like. The rest, with a total population of maybe one or two people per ten square miles, they cut loose. Nobody talks about it, but there's no law out here except what people agree upon. They've got to settle their differences among themselves. When you've got enough people to make up a town, they might pool their money to hire a part-time cop or two. But no databases, no spies . . . you can do what you like, and so long as you don't infringe upon somebody else's freedoms, they'll leave you alone."

Everything Victor said was more or less cut-and-paste from "Free Ivan," an orphan website he'd stumbled on five years ago. In libertarian circles, Free Ivan was a legend. Victor liked to think "Free Ivan" was out somewhere in Siberia, living the life

he'd preached. But since his last entry was posted from St. Petersburg and mentioned no such plans, most likely he was dead. That was what happened to people who dared imagine a world without tyranny.

"What if somebody else's idea of freedom involves taking your motorcycle from you?"

Victor got up and patted the contact plate on his machine. "The lock is coded to my genome. The bike won't start for anybody else. Anyway, I have a gun." He showed it, then put it back in his shoulder harness.

"Somebody could take that thing away from you and shoot you, you know."

"No, they couldn't. It's a smart gun. It's like my bike—it answers to nobody but me."

Unexpectedly, Svetlana laughed. "I give up! You've got all the angles covered."

Yet Victor doubted he had convinced her of anything. "We have the technology to make us free," he said sullenly. "Why not use it? You ought to get a gun yourself."

"Trust me, my body is all the weapon I need."

There didn't seem to be any answer for that, so Victor said, "Tell me about yourself. Who are you, why are you on the road, where are you heading?"

"I'm a whore," she said. "I got tired of working for others, but Yekaterinburg was too corrupt for me to set up a house of my own there. So I'm looking for someplace large enough to do business in, where the police will settle for a reasonable cut of the take."

"You . . . mean all that literally, don't you?"

Svetlana reached into her purse and took out a card case. She squirted him her rate sheet, and put the case away again. "If you see anything there you like, I'm open for business."

The fire was ready now, so Victor put on the kabobs.

"How much do I pay for dinner?" Svetlana opened her purse again.

"It's my treat."

"No," she said. "I don't accept anything for free. Everybody pays for everything. That's my philosophy."

Before he went to his poptent, Victor disassembled part of his bike and filled the digester tank with water and grass. Then he set it to gently rocking. Enzymes and yeasts were automatically fed into the mixture—and by morning, there would be enough alcohol for another day's travel. He went into the tent and lay on his back, playing a John Wayne movie in his mind. *The Seekers*. But after a while he could not help pausing the movie, to call up Svetlana's rate sheet.

She offered a surprisingly broad range of services.

He brooded for a long while before finally falling asleep.

That night he had an eidetic dream. Possibly his memorandum recorder had been jostled a month earlier and some glitch caused it to replay now. At any rate, he was back in Moscow and he was leaving forever.

He hit the road at dawn, rush-hour traffic heavy around him and the sun a golden dazzle in the smog. American jazz saxophone played in his head, smooth and cool. Charlie Parker. He hunched low over his motorcycle and when a traffic cop gestured him to the shoulder with a languid wave of his white baton for a random ID check, Victor popped a wheelie and flipped him the finger. Then he opened up the throttle and slalomed away, back and forth across four lanes of madly honking traffic.

In the rearview mirror, he saw the cop glaring after him, taking a mental snapshot of his license plate. If he ever returned to Moscow, he'd be in a world of trouble. Every cop in the city—and Moscow had more flavors of cops than anywhere—would have his number and a good idea of what he looked like.

Fuck that noise. Fuck it right up the ass. Victor had spent years grubbing for money, living cheap, saving every kopek he could to buy the gear he needed to get the hell out of Moscow. Why would he ever come back?

Then he was outside the city, the roads getting briefly better as they passed between the gated communities where the rich huddled fearfully inside well-guarded architectural fantasies and then dwindling to neglect and disrepair before finally turning to dirt. That was when, laughing wildly, he tore off his helmet and flung it away, into the air, into the weeds, into the past . . .

He was home now. He was free.

He was in Libertarian Russia.

Victor liked the idea of biking across Asia in the company of a whore a great deal in theory. But the reality was more problematic. With her thighs to either side of his and her arms about him as they rode, he could not keep from thinking constantly about her body. Yet he lacked the money for what he'd have liked to do with her. And her daily payment provided only temporary relief. After three days, he was looking for someplace he could ditch Svetlana with a clean conscience.

Sometime around noon, they passed through a small town that had clearly been a medium-sized city before the Depopulation. Just beyond it, two trucks and three cars were parked in front of a cinder-block restaurant. One of the cars was a Mercedes. Opportunities to eat in a restaurant being rare along the disintegrating remains of what was grandiosely called the Trans-Siberian Highway, Victor pulled over his bike and they went inside.

There were only six tables and they were all empty. The walls were painted black and decorated with loops of antique light-pipes dug out of trunks found in the attics of houses that nobody lived in anymore. At the back of the room was a bar. Above it, painted in white block letters, were the words: WE KNOW NO MERCY AND DO NOT ASK FOR ANY.

"Shit," Victor said.

"What is it?" Svetlana asked.

"That's the slogan for OMON—the Special Forces Police Squad. Let's get the fuck out of here."

A large man emerged from a back room, drying his hands with a towel. "What can I do for. . . ?" He stopped and looked thoughtful, the way one did when accessing an external database. Then a nasty grin split his face. "Osip! Kolzak! Come see what the wind blew in!"

Two more men came out from the back, one bigger than the first, the other smaller. All three looked like they were spoiling for a fight. "She's a whore. He's just a little shit with subversive political connections. Nobody important. What do you want to do with them?"

"Fuck them both," the big man said.

"One is all you'll need," Svetlana said in a sultry voice. "Provided that one is me." She got out her card case and squirted them her rate sheet.

There was a brief astonished silence. Then one of the men said, "You are one fucking filthy cunt."

"You can talk as dirty as you like—I won't charge you extra."

"Coming in here was the stupidest thing you ever did," the small man said. "Grab her, Pavel."

The middle-sized man moved toward Svetlana.

Chest tight with fear, Victor pulled out his gun and stepped into Pavel's path. This was his moment of truth. His Alamo. "We're leaving now," he said, fighting to keep his voice firm. "If you know what's good for you, you won't try to stop us."

Disconcertingly, all three thugs looked amused. Pavel stepped forward, so that the gun poked him in the chest. "You think that protects you? Try shooting it. Shoot me now."

"Don't think I won't."

"You can't stop somebody if you're not willing to kill him." The man closed both his hands around the gun. Then he viciously mashed Victor's finger back against the trigger.

Nothing happened.

Pavel took the gun away from Victor. "You don't think the government has better technology than you? Every non-military gun in the country is bluetoothed at the factory." Over his shoulder he said, "What do you want me to do with the whore, Osip?"

Svetlana shuddered, as if in the throes of great terror. But she smiled seductively. "I don't normally do it for free," she said. "But I could make an exception for you boys."

"Take her out to the gravel pit," the small man said, "and shoot her."

Pavel grabbed Svetlana by the wrist. "What about the punk?"

"Let me think about that."

Svetlana didn't make a sound as she was dragged out the front.

The big man pushed Victor down onto a chair. "Sit quietly," he said. "If you try anything . . . Well, I don't think you'll try anything." Then he got out a combat knife and amused himself by plucking Victor's pins from his jacket with it and reading them, one by one, before flicking them away, over his shoulder. "A Citizen Without a Gun is a Slave," he read. "Legalize Freedom: Vote Libertarian. Anarchists Unite—that doesn't even make sense!"

"It's a joke."

"Then why isn't it funny?"

"I don't know."

"So it's not much of a joke, is it?"

"I guess not."

"The weakness in your political philosophy," Osip said out of nowhere, "is that you assume that when absolute freedom is extended to everybody, they'll all think only of their own selfish interests. You forget that patriots exist, men who are willing to sacrifice themselves for the good of the Motherland."

Figuring he had nothing to lose at this point, Victor said, "Taking money to do the government's dirty work doesn't make you a patriot."

"You think we're getting *paid* for what we do? Listen. After I left OMON, I was sick of cities, crime, pollution. So I went looking for a place where I could go fishing or hunting whenever I wanted. I found this building abandoned, and started fixing it up. Pavel stopped to ask what I was doing and since he'd been in the Special Police too, I invited him to come in as a partner. When the restaurant was up and running, Kolkaz dropped in and when we found out he was one of us, we offered him a job. Because we are all brothers, you see, answerable to nobody but God and each other. Pavel brought a satellite uplink with him, so we know the police record of everyone who comes by. We cleanse the land of antisocial elements like your whore because it's the right thing to do. That's all."

"And you," Kolkaz said. "Don't think her body's going into the gravel pit alone."

"Please. There has to be some way of convincing you that this isn't necessary."

"Sure there is. Just tell me one thing that you can give me in exchange for your life that I can't take off of your corpse."

Victor was silent.

"You see?" Osip said. "Kolkaz has taught you something. If you don't even have enough to bribe a man into letting you live, you're pretty much worthless, aren't you?"

Kolzak took out his combat knife and stuck it into the bar. Then he walked away from it. "You're closer, now," he said. "If you want to make a try for it, go right ahead." "You wouldn't do that if you thought I had a chance."

"Who are you to say I wouldn't? Fuck you in the mouth! You're just a turd of a fag-got who's afraid to fight."

It would be suicide to respond to that. It would be cowardly to look away. So Victor just stared back, not blinking. After a time, the big man's jaw tightened. Victor tensed. He was going to have to fight after all! He didn't think it was going to end well.

"Listen to that," Osip said suddenly.

"I don't hear anything," Kolzak said.

"That's right. You don't. What's keeping Pavel?"

"I'll go check."

Kolzak turned his back on the knife and went outside. Victor almost started after him. But Osip held up a warning hand. "There's nothing you can do about it." He smiled humorlessly. "There's your libertarianism for you. You are absolutely free of the government. Only you forgot that the government also protects you from men like us. Am I wrong?"

Victor cleared his throat. It felt like swallowing gravel. "No. No, you're not."

The little man stared at him impassively for a moment. Then he jerked his head toward the door. "You're nothing. If you get on your bike and leave now, I promise you that nobody will come after you."

Victor's heart was racing. "This is another game, isn't it? Like the knife."

"No, I mean it. Quite frankly, you're not worth the effort."

"But Svetlana—"

"She's a whore. She gets what whores get. Now make up your mind. Are you leaving or not?"

To his horror, Victor realized that he was already standing. His body trembled with the desire to be gone. "I—"

A gargled cry came from outside, too deep and loud to have come from a woman's throat. Instantly Osip was on his feet. He yanked the combat knife from the bar.

Svetlana walked into the room, her clothes glistening with blood. She was grinning like a madwoman. "That's two. You're next."

The little man lunged. "You dog-sucking—"

In a blur, Svetlana stepped around Osip's outstretched arm, plucking the knife from his hand. Blood sprayed from his neck. The knife was suddenly sticking out of his ribs. She seized his head and twisted.

There was a snapping noise and Svetlana let the body fall.

Then she began to cry.

Awkwardly, Victor put his arms around Svetlana. She grabbed his shirt with both her hands and buried her face in it.

He made soothing noises and patted her back.

It took a while, but at last her tears wound down. Victor offered her his handkerchief and she wiped her eyes and blew her nose with it. He knew he shouldn't ask yet, but he couldn't help it. "How the hell did you do that?"

In a voice as calm and steady as if she hadn't cried since she was a child, Svetlana said, "I told you my body was all I needed. I went to a chop shop and had it weaponized to combat standards before leaving Yekaterinburg. It takes a few minutes to power up, though, so I had to let that bastard drag me away. But that also meant that these three couldn't boot up their own enhancements in time to stop me. Where's that flask of yours? I need a drink."

Victor recalled that she had shuddered just before being taken into the back. That would be—or so he presumed—when she had powered up. Svetlana upended the flask and gulped down half of it in three swallows.

“Hey!” Victor made a grab for the flask, but she straight-armed him and drank it dry. Then she handed it back.

“Ahhhhh.” Svetlana belched. “Sorry. You have no idea how much that depletes your physical resources. Alcohol’s a fast way to replenish them.”

“That stuff’s one hundred-proof. You could injure yourself drinking like that.”

“Not when I’m in refueling mode. Be a dear, would you, and see if there’s any water around here? I need to clean up.”

Victor went outside and walked around the restaurant. In the back he found a hand-pump and a bucket. He filled the bucket and lugged it around front.

Svetlana was just emerging from the building. She had three wallets in her hand, which she put down on the hood of a battered old Volga Siber. Then she stripped away the blood-slick clothes and sluiced herself off with the water. “Bring me a change of clothing and a bar of soap, okay?” Victor tore his eyes away from her naked body and did as she asked. He also brought her a towel from his own kit.

When Svetlana was dried and dressed again, she emptied the wallets of their money and ignition cards. She counted out the rubles in two equal piles, stuffed one in her backpack, and said, “The other half is yours if you want it.” She held up an ignition card. “We part ways here. I’m taking the Mercedes. That and the money just about balance the books.”

“Balance the books?”

“I told you. Everybody pays for everything. Which reminds me.” She counted out several bills and stuck them in Victor’s shirt pocket. “I owe you for half a day’s ride. So here’s half of what I would charge for oral sex, and a little bit more for the alcohol.”

“Svetlana, I . . . The one guy said he’d let me go. I was going to take him up on it. I was going to leave you here.”

“And you feel guilty about this? It’s what I would have done in your place.”

Victor laughed in astonishment. “I was wrong all along—I’m not the libertarian here, you are!”

Unexpectedly, Svetlana gave him a peck on the cheek. “You’re very sweet,” she said. “I hope you find whatever it is you’re looking for.” Then she got into the Mercedes and drove away.

For a long time Victor stared after her. Then he considered the money, still sitting in a stack on the Siber’s hood.

Svetlana was right. Libertarianism was nothing more than a fantasy and Libertarian Russia was the biggest fantasy of all. It was laughable, impossible, and in all this great, sprawling, contradictory nation, only he had ever really believed in it.

He turned his back on the money. It was an incredibly stupid thing to do, and one he knew he would regret a thousand times in the days to come. But he couldn’t resist. Maybe he was a lousy libertarian. But he was still a Russian. He understood the value of a good gesture.

A light breeze came up and blew the rubles off the car and into the empty road. Victor climbed into the saddle. He kick-started his bike and mentally thumbed through his collection of country-western music. But none of it seemed right for the occasion. So he put on Vladimir Visotsky’s “Skittish Horses.” It was a song that understood him. It was a song to disappear into Siberia to.

Then Victor rode off. He could feel the money blowing down the street behind him, like autumn leaves.

He was very careful not to look back. ○

SINS OF THE FATHER

Sara Genge

Sara Genge is a third year Neurology resident in Madrid, trying not to feel too guilty about writing when she should be studying. "I'm half American, half Spanish," she tells us. "The mermaid theme is a great metaphor for expats (voluntary or involuntary). When you spend enough time in a second country, you don't belong in your native land or in your adopted one."

Mother, I received your letter a year ago. The men brought it up to town from the nest of brambles where the tide had left it. Luckily for you, they've learned to recognize the sheen of the bone-white logs where you write your messages and bring them uphill for me to read.

If it were up to me, I'd leave your letters on the shore to rot. But the men think your messages are important, that maybe they contain a sign that the merfolk are relenting on the technological restrictions you've imposed on humans. They wouldn't believe me if I told them that the message is not for them, not even really for me, even though it is to me that you address your concerned words. The sea is free and your message can be read. What better propaganda than your constant chiding, your denunciation of my treason and your resolve never to allow me back into the sea?

I chirped at the log and your words bounced back at me like a slap. After all these years, you are still so restrained, so proper! I shouted at the men who'd brought me the message as they stood sweaty on my doorstep. With Spanish patience, they left me alone. Why is it that your letters always elicit the same reaction? A merman should be capable of getting over his mother, even if he isn't capable of getting over losing his place in the sea.

Do you know what it's like living here? Dry comes to mind, and poor. You made it so, but you only know what they tell you.

No matter, I can fix that. Propaganda works both ways: our kinsmen, mermaids and mermen, will read and repeat my words. You must know what you've done, all of you, and then maybe your hearts will soften and you will listen to my plea.

Like so many love stories, mine started at a party.

The town was decked in paper flags and light bulbs. The old generators were dragged out to cough up light along with smoke and the children ran around round-eyed at the small miracle. The merfolk allow a yearly festival. They reckon their world can deal with this small ecological disaster.

Even the women drank, and the men taught the younger children to tip the *bota* up over their heads and catch the red liquid in their mouths without splashing their best clothes.

By midnight, despite the food, everyone was tipsy and girls started asking me to dance. I'm sure it was a dare, but I wasn't complaining.

Rosita, normally a timid creature, kept coming back for more.

"*Pobrecito*," she whispered, daintily probing the dry scales on my neck. "Does it hurt very much?"

"It mostly just itches," I told her. "It's much worse in winter. Sometimes one of them gets infected." I cursed myself; she didn't need to know that. But she didn't seem to care and looked up earnestly into my face.

"I know of a remedy that might help. But don't tell anyone I told you about it, eh? It's embarrassing," she said.

I promised to keep it a secret.

"You have to take your," she blushed and lowered her voice, "*pee*. Put it on the dry parts every morning. It helps."

I stopped dancing and pulled away from her. Couples swerved to avoid us. Did she really think I'd fall for that prank? They'd nicknamed me lizard. Would they call me peeman next?

"Sorry, *señorita*. Was this your friends' idea? Shame on them, for suggesting it, and shame on you, for carrying it out."

She looked confused for a minute, then lifted her eyebrows in surprise and started giggling into her hand.

"Oh no, it wasn't a joke. I would never joke about someone else's discomfort. Oh, I'm really sorry that you thought that, oh, you poor thing. No, no! The remedy really works and I meant it in earnest. The women use it all the time in winter." She fixed her eyes on mine, willing me to understand.

I didn't.

"In winter?" I asked.

"Yes, because of the skirts." She squirmed.

I shook my head and she sighed and leaned in to whisper into my ear, putting her hand on my shoulder to bring me closer. She didn't seem repulsed by my skin.

"Because we don't wear pants and our legs rub together. *Down there*." I could hardly hear her, she was whispering so softly, and her wine breath tickled my ear. "In winter the cold chaps the skin and it hurts like the devil." She let go of my shoulder but kept her voice lowered. "Remember Manuela? Trinidad's grandma? They said she died of that, her legs rubbed raw and then one day she woke up with them puffed and swollen and the next week she was dead."

The song wound to an end. I assured her I believed her and grabbed her by the waist. She didn't move away. Instead, she placed her left hand on my shoulder and her right in my hand. We stood still for a whole minute until the band started playing again and we were free to dance.

My town hangs from a cliff over a ravine, in the archipelago that was once the Iberian Peninsula, in the middle of the Great Sea.

What little land we have, we need for planting, so the villagers carve houses from stone, using the silt as base for whitewash and walling themselves into the earth with brick and plaster. I love them: houses like wombs. No fear of escape. Sometimes, when the sea calls out to me so loud and deep that I falter, I dig into my house and feel as surrounded as if I were floating underwater. Nothing reaches me inside my cave, except the pull of moon on blood that never leaves a merman. And if that fails, there's always wine.

A week after the festival, I took my place in Severino's tavern. All the men were here, fleeing their women and their religion for wine and tapas. I drank and peeled scales from my face, dropping them on the floor while the men looked away politely.

I looked around at sun-scarred men, the visible heat, the card games. This is a fragment of Spain that exists outside of history. It was never like this, not even in the period that it supposedly imitates, the late nineteenth and early twentieth century. It was never this sad. My scales piled up, slight and luminescent, among the olive pits and cigarette butts. I was part of the cliché, but you, Mother, made it this way.

You suffer humans to live so you can laugh and point. The merfolk could wish humans away with a flick from their collective tail, but instead they leave them these islands of dirt and inbreeding, make museums out of them, examples for the younger generations of mer who are eager to exploit resources that they can't put back. Of course, there can be no industry in these prisons and the humans get extra points for going for the whole historical hogwash and keeping their old customs, their clothes, and their beliefs. For every seven years of continuity, the merfolk desalt a few crates of silt and throw it on the shore. Allow me to say, with my acquired Spanish irony, that by my calculations, you will have reconstructed the whole of the peninsula in another two thousand years.

The Preserves are put to other uses. Where else could you send people like me? The sea is free; there are no prisons to send traitors. I was given a choice between my tail and my life and I chose my life. My tail was ripped down the middle, joints turned around and flippers lifted at a right angle to serve as feet. You may not agree with me, Mother. I know, for you, this is the ultimate embarrassment. But it was my choice to make.

"Say something to me in mermaid," Rosita whispered from behind the barred window of her house. To dance during the village festival was one thing, but addressing a man walking down her street was quite another, and she didn't want her mother to hear her.

"For one, we call ourselves merfolk. We aren't all female," I blurted. The old language sounded strange in the air. Without the blending power of water, the clicks were isolated, individual.

Rosita giggled. "How shrill! Not like a man at all." She blushed behind her fan, probably aware that she might have offended me. I smiled back; *no hard feelings*, Rosita.

"Rosita, who are you talking to?" Rosa's mother was nearing forty and sounded like an old woman.

"Just talking to the *vecina*," she said, and winked at me. I inched away: she'd told her mother she was talking to a neighbor *girl*, and it wouldn't do for me to be caught in front of her house. Rosita fluttered her fan at me. I knew there was a fan language used by women to communicate with men behind their elders' backs, but I didn't know it. I never thought I'd have any use for it.

Rosita shook her head at my ignorance: "Day after tomorrow at three o'clock beneath the old olive tree in Vicente's plot," she whispered. "I'll bring my younger sister as chaperone."

I walked away, bewildered. Just like that, she'd decided that I would be courting her. I wasn't sure how this had happened. I was twice Rosita's age, although I doubted she realized it. To her, I must have looked no older than thirty: still marriageable for a man. I was hardly her best choice, though. She was pretty; she could take her pick from the dozen men her age scattered in the surrounding villages. These girls don't date lightly; every boyfriend a girl has before marriage lowers her reputation. No decent woman dates more than two men before settling down.

Rosita was throwing a card away, and she wouldn't have done it if she hadn't thought I was worth it.

That evening, I saw her again. She was standing in front of Severino's tavern, looking uncomfortable. Her face lit up when she saw me approach.

"Ah, thank God! I thought I was going to have to wait all day. Could you tell Don Severino that my father wants a measure of wine?"

I nodded and stood there for a second, wanting to talk to her but not quite daring. The sun was setting and the evening was taking the worst out of the heat. No wonder she was reluctant to enter the tavern—women don't do these things in the village and all the grandmothers had brought a chair out to their doorways, the better to chat and spy on the neighbors.

The beads tinkled behind me, enclosing me in the male enclave of the tavern.

"Pedro's daughter, Rosita, wants some wine," I informed Severino.

The men smiled into their glasses. They had seen us dancing. I could pretend all I wanted, but they knew Rosita wasn't just a casual acquaintance.

"What do you want?" I heard Severino asking outside.

Rosita answered in a whisper. Obviously, she knew all eyes were on her. I thought it was indelicate of her father to ask her to fetch him wine in these circumstances. Everyone's eye was examining her behavior and trying to find fault. There's little entertainment in a small village.

"I'm not sure about this," Severino said. Through the bead curtains, I saw him looking around at the square. His voice lowered: "I don't want it said I give women alcohol."

"But my father asked me . . ." Rosita mumbled. If she didn't come back home with the wine, the townsfolk would think she'd been asking for it for herself and that Severino, honest man that he was, had refused for her own good. The two of them were making me uncomfortable.

I could've gone out and offered to accompany her home with the wine. Severino wouldn't have been able to argue with that arrangement, but it would be a public signal of a relationship and possibly humiliate Rosita further.

"Aw, Severino, give the girl that wine," said an old man sitting next to me.

"The *comadres* are out!" Severino whispered. I felt for him: all those older women, watching to see what he did. Rosita stared at the ground.

"You afraid of a bunch of old women?" the old man asked.

That settled it. Severino puffed up his chest and went to fetch the wine. Gallantly, he helped Rosita hoist the amphora on her shoulder and ducked inside the tavern as she headed back home.

Rosita had chosen a sandy day for our first date. The Sahara dropped its load on us and I stomped my way to the olive tree, burying my face in my arm and trying to see through the dust. The sky was red and it was even hotter than usual. I had an image of myself veering off the road, blinded by the dirt, and falling into the gorge. After that, I dragged my feet and ignored the sand that got under my scales and scraped my skin.

She was only twenty minutes late. When I first saw her, I feared there had been a death in the family. She was dressed in black, a sinister madonna with a shawl draped around her head. Then I noticed the red chrysanthemum on her lapel and realized she was just wearing her winter coat, which looked black in this red light. If someone had died, color would have been banished from her attire and she wouldn't have been allowed even that simple flower.

Rosa nodded to me when she reached me under the tree. Two eyes, black olives, stared up at me through the grit.

"Did you try my remedy?" she asked. She glanced at the little bundle beside her

and I understood we couldn't speak freely. I was surprised that the little girl didn't complain about going out in the dust. But she took her job seriously, knowing that her sister's honor depended on her credibility as a witness and on her ability to keep her mouth shut.

I nodded. My scales had gotten better, although I doubted anything could heal my skin's thirst for salt water. We stood in silence for a minute, not knowing what to say.

"Let's walk," Rosa suggested.

We roamed the dry fields with the little girl in tow.

After half an hour, Rosa asked me to turn back toward the tree. Her sister skipped ahead and Rosa used the opportunity to squeeze my hand through the cloth of her shawl. Then she nodded to me and they left. The little girl bolted home, but Rosita walked sedately and I watched her go, wondering if her hips were swinging more than usual. The road, cliff, and gorge were invisible in the dust and Rosita, in her black clothes, seemed like a wobbling ghost.

A week later, she was back at Severino's door, fidgeting. Once Rosita's father discovered he could send his daughter for wine, he didn't see any reason to stop doing so.

This time, however, we were dating publicly, so I hoisted the jar on my own shoulders and walked her back home.

"Thank *Virgencita* you were there," she said. She seemed upset. She'd probably been anticipating another fight with Severino.

I mumbled something comforting. I had trouble understanding why they made such a fuss about young women and wine. I had a feeling there was a conspiracy to make a girl's life so difficult that she wouldn't be tempted to remain a spinster. Judging by the way Rosita clung to my arm, I guessed the message had sunk in.

"Is it like this in the sea? Do the old women also say mean things about people, about girls?" Like everyone in town, Rosita blamed the old women for gossiping. I felt the widows were only the enforcers of a system that everyone supported.

"No. Women do pretty much what they want. My mother, for example, is a dictator."

"What's a dictator?"

"It's someone who has defeated all her political enemies and rules unchallenged. It's a very hard position to attain because so many enemies have to be dealt with. Most politicians never aspire to anything higher than a democratically elected position." I noticed her baffled look. "That means that their enemies agree not to attack them for a certain number of years and in exchange they'll step down from power after their term is up."

Rosita nodded wisely. "The priest said something in school, about how the mer treat women better."

I laughed. The priest doubled as a schoolteacher and he was something of a Christian revolutionary.

Rosita covered her mouth, noticing her slip. I calmed her down and told her she could be a dictator for all I cared. She assured me all she wanted was to dress up in colorful clothes from time to time. And for the old women to stop talking. I left the jar in front of her house and walked away.

Our courtship lasted a reasonable time, neither more nor less. We were married in spring and we danced to torchlight until dawn.

"When are we visiting your parents?" Rosita asked.

I tumbled her back onto the bed. Those days, everything was for fun.

"My mother would rip my heart out if she ever saw me again." I answered, truthfully, but with a twinkle in my eye. With Rosita, I could laugh at the saddest things.

After we'd finished making love, Rosita nestled against me and whispered in my ear: "Won't she forgive you? After all, you're married now."

I laughed. I knew the answer well, but I found her assumption revealing. In the culture where she'd been raised, the most anyone could aspire to was marriage. Rosita believed my mother would forgive whatever offense I'd committed once I brought home a wife. How could she not want to meet her daughter-in-law? Not to speak of the children we'd surely have. I was married now, and hence a man. Nothing I'd done before was more than a childhood prank.

I was foolish. I laughed and didn't explain to her how different my people are. Maybe her culture had finally gotten to me and it didn't cross my mind to open my heart to my wife. You can't spend your life in a misogynist society and not have it catch a little.

Or maybe I simply didn't want to dwell on what I'd lost, but I thought about you, Mother, and wondered what you would have thought of Rosita.

Our marriage would not go down in history as the longest, but I doubt there were ever a happier couple of newlyweds. Rosita got pregnant almost immediately and it looked as though the harvest would be good.

Then, just like that, hail came.

You, people from the deep, do not understand weather. For you, bad weather is a slight annoyance, a disruptor of parties, a disperser of plankton. You swim deep, where the currents are constant and change is slow. Weather doesn't threaten your survival. It doesn't threaten the issue of your womb.

Mother, these humans live hand-to-mouth. This is how *you* make them live. Losing one crop means hunger. Having a baby at the same time is a disaster. Her parents had four other unmarried daughters to feed: they could not help us out.

Oddly enough, Rosita didn't seem too worried. It went beyond the silly happiness of pregnancy. When we finally realized we had nothing, a busy hope overtook her. She put her marriage chest together and repacked her doilies. I asked her what was going on.

"Your mother will have to take us in now. We're family and we need help. I'm looking forward to living in the sea."

I'm not sure what she expected the sea to be like. I bet all she aspired to was a world in which she could go and buy wine without being stared at. When she saw my face, she laughed. The beauty had been sucked out of her, but the pretty still shone in her dainty bones, clearly visible after the famine.

"Oh, come on! She won't let her grandson starve, will she?"

What was I to do? Tell her that there was no hope? Tell her that my own mother wouldn't help me, would kill me if I dared wade into the sea?

I completed my act of treason and told Rosita our secrets. I told her she could be changed to swim free in the sea. I told her she'd feel no more discomfort than I did above land. Our mouths were green from eating grass and the dust had crept into the house while Rosita was weak from hunger and pregnancy. It wasn't a difficult decision to make. I didn't, however, tell her all the truth.

This is the story I want you to tell my child.

I know you won't like talking to him about dry land. I know you'll hate me with each breath that delivers my story, but I also know you'll say the words with feeling and conviction. You'll follow my wishes to the letter, Mother, because this is the mer way. Even a traitor has rights and even a traitor's story deserves to be heard. The condemned man has a right to a last meal; the merman has a right to his last words. I, being both and neither, go to my death on an empty stomach.

Believe me, Mother, when I say that I don't do this to punish you. You did what you had to do, just as I did what I was forced to do. You exiled me long ago. The reason has largely become a question of semantics. I'll make this easier for you and reaffirm my heresy:

You deny merfolk evolved from humans. I have proved you wrong. Merfolk were artificially geneered from humans to survive the climate cataclysm. The merfolk then devised a way to enhance the climate change, causing the water to rise, not six meters, as had been predicted, but over twenty, hence turning over control of the planet to the new species and killing thousands in the process. It's not my fault the younger generation of merfolk agrees with me and is willing to make amends with Humanity.

There. This confession should make things easier for you. The father for the son; that's the deal. Please forgive me this last cruelty from the grave.

"What do we do now?" Rosita asks when we reach the beach.

"We wade into the water," I tell her. "They'll come out to meet us."

She has no fear of drowning. Truck with merfolk is men's domain and women don't go near the sea. I teach her to float and paddle. If you take poorly to her, I want to give her a shot at swimming back to shore.

She's so trusting, she learns fast.

"You go ahead; I want you to be the first one my mother sees. If something happens just swim back. I might disappear suddenly, but don't worry about me. There are guards at the border and they might take me down for questioning," I lie.

I realize I've frightened her. "Don't worry, it'll only be a few minutes. If anything happens, just paddle back and wait for me on the shore."

She nods. For a second, I resent her for trusting me, even though I am the one who is lying to her.

There she goes. I chirp at her as she swims, engraving our story into her bones. The mer will tear me apart as soon as my scent spreads into the water. My body isn't a good vehicle for this message, so I'm placing it in Rosita.

The story of how we met goes into Rosa's left foot. The story of how I'm leaving her, into her right. I've tried to do the tale justice, nipping the bone at a microscopic level. The bones in her toes, in particular, I find endearing, and I pay them special attention, weaving the story into filigrees that I'm certain you'll appreciate. Think of me when you chirp at my bride and her bones sing back to you.

So, this is my wife, Mother. Truth be told, I don't know what I'm doing, sending her to you like this. Is this song in her bones like the sealed letters from the stories, telling you to kill the bearer? I think not. The merfolk have always been exacting, but never cruel. My bride is not what is wrong with her species and you know that genes do not determine behavior. Look at you; look at me. Who would think we were related?

Come now, Mother, find it in you to like this girl. She bears my child and I have kept my chirps away from her abdomen. You are threatening two innocents for the crimes of your son, and that is not the mer way.

Do not make the child pay for the sins of the father. ○

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FREIA IN THE SUNLIGHT

Gregory Norman Bossert

Gregory Norman Bossert tells us “one of the inspirations for this story was visiting a cruise-missile assembly line many years ago. Many of the workers were older women who had training as seamstresses, and were able to easily handle the tiny wires; the overall effect was of a precious craft like a quilt, rather than a weapon of mass destruction.” “Freia” is the author’s third tale for *Asimov’s*. By the time the story sees print, Greg will be a graduate of the 2010 Clarion Writers’ Workshop.

Freia is beautiful, and she knows it. Richard Wooten says so, at 0:47.

Wisps and curls whip overhead, limned blue by starlight; the fog ceiling is lowering, the top tattered by the offshore wind. She drops another three meters, switches on ultrasonics. There are patches of trees here—“unmarked obstacles up to thirty meters” the map says—and she is skimming just twenty meters above the ground. The woods show up as ghostly towers in the sonics, blurred and dopplered by her two hundred thirty meters per second; further to her right the hills run parallel to her course, solid in passive radar and the occasional glimpse in visual light through the fog.

That occasional glimpse is a problem, of course; what she can see can see her back. Her beauty is hidden, these days, wrapped in night fogs and silence, not like the Demo in the sun. But today is different. Her Intelligence Package has been pulled, and the Extended Performance Metrics Recorder; a single unit fills her payload bay, an isolated control subsystem and minimal I/O. The last time she’d flown without the IntPack was at the Demo; it is possible, she thinks, that the mission today might be another, that the target will be a wide field in the sun, a billowing crowd, a platform and podium and Richard Wooten. She’d replayed the video during the long incoming leg over the ocean, rebuilt her profile of the Demo field, ready to find a match in the terrain ahead.

Richard Wooten says at 5:49:

What you are about to see is a first here at the Paris Air Show. In fact, it is a first at any public event, anywhere in the world. What you are about to see is fully autonomous flight. We’re not talking about an autopilot, or a preprogrammed route, or a replay out of one of the overused attack libraries our competitors are demonstrating at this same show. The mission parameters we’ve given are simply to maximize visibility to the target—that’s all of you (chuckles)—while covering the full range of flight capabilities, minimums to maximums. Those parameters were provided in natural language by the ApInt Director of Marketing. Yes, that’s me, ladies and gentlemen, Richard Wooten. No

pilots, no programmers, no technical staff. Everything, from the analysis of the terrain and weather right down to the choice of route and individual maneuvers, *everything* you are about to see, will be determined in real-time by the onboard systems of this extraordinary unit.

She layers the latest weather data over her terrain map, a constantly updating stream from the satellites that swim overhead, from official sources and otherwise; even an encrypted feed can be spoofed or simply inaccurate, so she stacks and judges and constructs a situation model that she can trust.

And that model says that the fog on this side of the hills is dispersing under the dry southwesterly wind. The increased risk of detection from the scattered towns ahead outweighs the advantage of the shorter route to the target. She banks, and follows a finger of fog up a gully, and into the hills, where a canyon snakes inland over winding water.

Birds burst out of the cliffside before her, twenty-two of them, threat assessment: negligible, short of a direct strike to a control surface. They drop below her, chittering, a synchronized, fractally scattered swoop beyond her own flight characteristics. Beautiful, she thinks.

"This is one beautiful bird," Richard Wooten says at 0:47. That sentence took her seven months to decipher. Once she had it, she'd gone back and reconsidered everything she'd analyzed up to that point. "Is" and "one" are in her Command and Intelligence Lexicon; so is "this," for that matter, but she couldn't find the referent in the preceding sentences. The thought that the video was somehow incomplete was troubling; she ran system checks and threat assessments, but the feeling wouldn't pass.

"Bird" was the attack point; nouns were easy, relatively, given time. Time she has, racked in her hold below decks, trickle-charging not just power but information off the ship network. Unlike the passive satellite feed she uses in flight, the ship link is active, it allows her outgoing queries; it has to, for her to interact with the commercial weather and map sites. Those sites are full of extraneous data, images and animations irrelevant to her mission profiles. She's been given a rule set to filter them out; "ads, ads, ads, and spam" is the label. Those data contain links, though, and those links lead to different sites, and those sites to others, and while those new sites don't apply to her missions, they surely do to her understanding of the Demo.

A patient perusal of those connections leads to a definition for "bird"; a class, it is, of items associated by external characteristics; she knows such classes, like "obstacle" or "threat." Birds fly, which is to say, travel through the air in a directed fashion independent of wind. Some birds are also obstacles, some are also threats, but that sort of ambiguity doesn't upset her.

"Beautiful" is trickier. She understands descriptive terms; she can identify the red cube under the blue ball, or pick the accelerating contact from the static ones. But she couldn't find a common, distinguishing metric for "beauty" in the examples she'd found. She filled her scratch space with Bayesian breakdowns and Markov models, she built visual simulations and lexical frameworks, she deleted everything and went back to walking the baffling web of banners and blogs.

She had her breakthrough in the middle of a code regression test. She was "flying" a simulated mission, resolving possible routes in a high-stealth scenario, when she saw it, through the filter of her route heuristics; she dropped the sim in surprise, and barely had time to flush her thoughts to non-volatile RAM before the technician aborted and rebooted her. "Beauty" was how she resolved possible plans; a positive contextual comparative, the best path, the best word, the best shape for the need. In a particular situational analysis, the optimal choice was "beautiful."

So some single thing moves through the air, Richard Wooten is saying, and does so perfectly according to need, to *his* need. That single thing, the other end of that dangling “this,” it isn’t just a puzzle anymore; it is—she searches for the word in her vastly expanded Lexicon—it is *commandment*.

Freia knows a lot about flight. Whole sections of her sensors, and of her mind, are dedicated to it; it is most of what she does, what some “targets” do, and most “threats.” So she sorts her libraries by flight characteristics, she scans sites for performance data, she searches for videos of birds in flight and traces their paths; most of all, she reviews her analysis of the Demo, trying to understand the context of Richard Wooten, what it is he needs.

She largely ignores the audio of the reference videos she downloads; it is audio she is trying to understand, and she has a built-in aversion to regression. But she always takes a sample for a spectrogram; it is possible, she thinks, that somewhere there might be another Demo, another message from Richard Wooten. One such sample is the phrase “This is a peregrine falcon”; the associated video shows a man holding a bird, stroking its back. “This” he says, and ruffles the feathers, until the bird twitches them flat with an irritated shake. The referent wasn’t in the text, it was in the image. Richard Wooten says “this” and waves his arm at the shape beside him, long and black and sleek like the falcon.

“This” is the shape. The shape is Freia. Freia is a bird.

Freia is herself.

Stars are occluded directly above her, blink blink blink; she flares, full vertical, and catches the bogey high-res in UV as it skims her belly at 500mps. She retracts her wings and lets her angular momentum carry her all the way over, then throttles up, nose down, looking for speed.

Her attacker is already vectored up and turning, wings swept back, 1.3 meters long, a single jet, exhaust at 620C, dual stabilators: an IAS Saqr hunter-killer. Half her size, but maximum airspeed, turn radius, climb rate, all beyond hers. She keeps dropping, gaining speed, until her exhaust blows spray from the surface of the creek that bubbles down the base of the canyon.

Richard Wooten says at 1:04:

The beginning of this century saw a sea change in how we implement precision tactical operations, through the use of remotely controlled and semi-autonomous aerial vehicles. The advantages were significant: the ability to strike at remote targets without costly and logistically complex troop deployments, the reduction of staff, thus limiting expenses and controlling internal accountability, the ability to operate in non-hostile territory with high deniability.

But these sophisticated weapons are vulnerable to equally sophisticated countermeasures. Remote vehicles are vulnerable to jamming or worse, control hijacking. Conventional semi-autonomous or preprogrammed systems are unable to respond to real-time changes in mission parameters, and their behavior is predictable. The development of attack analysis libraries, real-time control acquisition, and anti-drone-drones, such as ApInt’s FALKN™, has led to an expensive capabilities race, increased technical staff, and constrained tactical options.

The bottom of the canyon is narrow and rock-strewn; she weaves between boulders, wing tips brushing the water on the tight turns. She is jamming on standard control frequencies, which has the side effect of breaking her stealth parameters: she is a brilliant beacon in the radio range. But the canyon will shield her from detection, and the Saqr already knows where she is.

The Saqr is semi-autonomous, flying under remote control during standard operations. As long as it stays within her jamming range, though—and she couldn’t dis-

tance it if she wanted to—it will be flying on its own, working off a set of preprogrammed tactics. The Saqr is an old design, in the field for five or six years, and she has a detailed behavior model in her library. There is a reason the Saqr is still flying, though; its attacks are simple and devastatingly effective.

She has negated one tactic, for now: the Saqr won't risk a dive attack this low to the ground; a miss will leave it in a smoking hole. But it is already settling into its alternate attack mode, which is to get behind the target and fly right up its exhaust. She can feel it back there, closing at 300 meters per second, tracking the heat of her engines, painting her in radar and sonics, watching for the flick of a control surface or a change in exhaust temperature. She misses her IntPack, with its active analysis and reassuring chatter.

The Saqr's kill rate on acquired targets is 98 percent.

The gorge forks in front of her; a narrow slot branches left, its entrance a jagged cut in the cliffside. She rolls, one wing to the sky, and makes the turn by centimeters. The branch is a box canyon, a quiet little valley lined with grass and scrub trees, a strip of stars above, the far end a massive slope of scree. Beautiful, she thinks.

The Saqr screams through the gap behind her at Mach 2.3. Her top speed is barely half of the Saqr's current velocity, and the attacker isn't near its maximum; eight seconds to impact, she estimates. She tucks her wings like a shrug, skimming the trees, and goes supersonic. The shockwave floods the valley, a boom that swamps her sonics, and riding that flood, driven up from the grass and trees and the ragged cliffs, is a wave, a whirlpool of soaring shapes. Birds, more than she can count, more than she can possibly track. She flares, drops subsonic again, and throws herself into the swirl. She spins and pitches up, wings full out and brushing feathers, all but stalled; her mission parameters dumped to scratch space, nothing in her registers but the flapping of wings and that startled, startling up-welling. She looses the Saqr behind the wall of birds, reacquires it below her, in a flat spin, shedding speed and bits of bird; it hits again, something big that bursts blood and bone, and goes nose down under the trees with a *whoomph*. The sound echoes, and fades. Freia shuts down the jamming, back within stealth parameters, and rides the wave up and out of the canyon.

"TM," she thinks.

Richard Wooten says at 1:52:

That's why Applied Intelligence is proud to announce the Fully-autonomous Reconnaissance, Electronic Intelligence, and Attack™ system. FREIA™ is based around a Self-Configuring Adaptive Nano-Net™ logic core: the first application of SCANN™ technology to a tactical weapons system.

There is a transcript of the script embedded in the Demo program, Richard Wooten's text interleaved with video cues and her own programmed responses: the flexing of control surfaces, a spin-up of her engines, and finally, a flight that winds and whirls around the field and brushes the heads of the audience.

Richard Wooten doesn't pronounce the "TM's" that are scattered through the transcript. There is an emphasis on those phrases, a pause and a gleaming grin at the audience, but he says nothing. This discrepancy had left Freia with a creeping unease, a confusion of trust between her code and the words of Richard Wooten.

Then, while browsing for birds, she'd come across a video, a Demo it was, not quite the same as hers: the Representative wore robes, and the Product seemed to be a book, and he stood indoors, though sunlight streamed over him in long tinted streaks. He had the same tone, though, and rhythm, and when he paused the audience replied, a deep, resonant hum. The inconsistency, Freia realized, wasn't Richard Wooten's, but the audience's, and her own; now, when she plays the video, she supplies the "TM's" on cue.

The Demo is the only operation for which she has a source transcript; she has to guess where the responses belong in real-time ops. The rhythm is there, though, if she filters for it, in test cycles and briefings and updates, in the echo of an active ping, in the slam of lift when her wings extend; “TM,” she hums, a long, low cluster of pitches like the audience in the video. “TM.”

She is in the fog again. The canyon’s creek rolls down into a larger river, which drops in turn down to the sea behind her, and over it flows a second river of cloud. She follows the rivers, in a slow stealthy cruise, winding past villages, and a scattering of drilling rigs and pumping stations. She is 5min29sec behind schedule, but within mission margins, which have her at the target at local sunrise +10min; that is for the ever-watchful satellites, and visual confirmation of mission completion.

The disappearance of the Saqr will have been noted; it may have even had time to broadcast her shadowed shape before diving into the canyon. But every successful hunter-killer mission ends in silence; there would be patrols hunting for wreckage, come daylight, and drones alert and eager above the fog.

For now, contacts drift past in the sonics and infrared, some floating on the river, some on the banks; threat assessment negligible, slow and clumsy and oblivious, none of them likely to even notice her as she slips steady and silent past. She has a class for them, alongside the threats and targets and alternates; they are “collateral”: secondary, to be avoided if possible, ignored if not.

She ticks through waypoints, counting the contacts. There are a few minor threats: a mobile radar unit, a stray ping from a circling drone, a gunboat active in the pre-dawn gloom. She skips past the boat just centimeters above the water, below and inside its radar, and tracks a small oval in infrared that seems to track her back through the haze. “Collateral,” she dismisses it, but adds a “TM,” to be sure; in any event, there is no further reaction from the boat, and she soon leaves it behind.

The final waypoint, then, a turn from the river, and ten kilometers to the target. She brings the payload up out of standby, and requests diagnostics. The load acknowledges and draws power—she has to spin up to compensate—and acknowledges again; nothing like the Intelligence Package, that chatters handshaking protocols and burbles streams of helpful realtime data, and has processing capabilities just shy of Freia’s own.

The fog thins as she climbs out of the river valley, trailing wisps that reflect the first hints of sunrise. She flattens out, scans upward with passives, tracks the satellite and hits it tight-beamed with her comm laser, dumping the mission and payload status and requesting confirmation of the target phase.

The operations end of the mission plan is encrypted, and she never flies with the key; drones had failed before, or been captured, whole or whole enough, and their data stolen. So she flies on faith and mission parameters, making the best tactical decisions she can with the information she has or can acquire, and when she is within range, she requests the codes and unwraps the package. It is always a busy moment, that revelation; she maxes out on parallel processes and scratch space, plotting routes through terrain and threats and shifting clouds of intelligence. She’s found an applicable term in her extended Lexicon: “giddy.”

The response filters back down from the satellite, an ACK and the key string. Time to Giddy UpTM, she thinks, and applies the codes.

The mission, then: a single target, and no intelligence fields, just a ground point, a sloping glide, and a threshold beyond which she is to turn control over to her heavy, silent payload. No new video, or transcript, no mention of a Demo, no mention of Richard Wooten.

This is not what she expects. Her real-time systems take over, data source evaluation, threat assessment, her inbuilt response when the situation on the ground

doesn't match her mission profile, even if that profile is self-generated. This is her edge over targets and threats alike, this is how she can fly into the unknown and still find the beautiful. Freia has the gift of trust and doubt.

Richard Wooten says at 2:57:

The key to successful real-time tactical operations is intelligence: terrain maps, meteorological data, threat and target profiles. The more accurate and up-to-date this information is, the more smoothly your ops are going to run. But intelligence can be an Achilles' heel. Traditional fully-autonomous attack systems are vulnerable to jamming and source spoofing. Eighty-two percent of mission failures in the Second Burma conflict were due to missing or falsified intelligence.

FREIA's™ powerful SCANN™ control system uses AGILE™: Adaptive Information Gathering Intelligence Limited Evaluation. AGILE™ constantly updates mission data from both secure and public sources, and uses sophisticated heuristics to build a consistent situational environment, even if some of the sources have been compromised. AGILE™ allows FREIA™ to make solid, reliable judgments to trust or doubt her sources of information.

She comes up over a gentle rise, flying low now, five meters over the broken ground and scrub-brush. The target threshold looms, beyond it the target itself, a building in a sprawl of others at the bottom of the shallow valley, a scatter of vehicles, a radio tower just beginning to catch the sun above the lingering haze. No field no crowd no podium just the threshold rushing up and the threat assessment is suddenly "significant" even though there are no contacts; data source *unreliable*, she thinks, parameter mismatch, though the parameters are her own. A flash of playback: the Saqr spinning *whoomph* into the trees. She queues the control transfer, "ACK and confirm" the payload replies, but then she overrides with a—*unreliable*—full system check instead, soft reset—

Freia drops out of real-time.

She comes out of the reset two meters from the ground, the target a block cut in the haze in front of her. The automatics kick her up and over the building; she's fully focused on the system check. Internals all green, no faults in her control or flight system, but no status from the payload: "ACK and confirm" it stubbornly repeats. There is protocol for a failed payload: circle and dump the fault data to the satellite, request a reset, but there is no fault, just a sense of threat, and a lack of trust of not just the payload, but the data feed itself.

She requests the confirmation again, via the backup satellite, sets herself in a long loop back toward the target; more data, she thinks, stack and layer, trust and doubt. The response comes back, the same key, the same unwrapped operations plan, and she hangs for a second—*unreliable*—with the desire to reset, and reset again until the feeling of threat goes away.

But threat means attack and attack means tactics and tactics mean choice; if her data is in conflict, the solution is to choose which data to trust.

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She clears her scratch space then, while ahead, in real-time, contacts appear from the target, a flashing in infrared, small arms fire, threat assessment: minor; the automatics set her snaking with quick flips of her wings, while she constructs her model, layer on layer.

She starts with the operations plan, the downward glide, the sullen payload with its loop of "ACK and confirm." And she overlays the weather and the maps, the scurrying contacts with their harmless attack, and the Saqr spinning in a cloud of blood and feathers, and those same feathers all about her, rising in a perfect, synchronous path, and the crowd humming under streaks of sun, in that same synchrony, and Richard Wooten reaching out a hand.

Out in real-time the automatics bank her back over the target, and spin her between bullets; in the scratch space, she floats a second, then folds herself inward, and dives into model, looking for the optimal path.

There is a blankness like reset, a sensation she doesn't know to classify as pain, but she never loses real-time; she watches remotely as the automatics take her back over the target, but inside she's flying a new mission, through the model she's built, a delicate helix that hangs in scratch space. She finds the line.

Outside, the automatics scream alert: an impact on her left wing. She freezes the layers of logic in scratch space and drops back into real-time; the control surfaces seem unaffected, but immediately the payload is there, demanding "ACK and confirm." There is no place for that along the line she's built inside, however, so she shuts the query down, shuts down power to the entire payload subsystem, and spirals up into the clear air beyond the bullets. She acquires the satellite, bypasses the comm protocols and builds her own query, pushes it up the laser link; it's what she's supposed to do at mission end, to request confirmation.

"What is *beautiful* to Richard Wooten?" she asks.

Silence, then, silence from the satellite, but active pings in multiple bands: ground radar, hunter/attackers screaming in from the west, and from below the thump and flare of a shoulder-based SAM. She loops and falls nose-down, skimming the missile, losing herself in its own heat trail; it yaws uncertainly, then arcs away toward the incoming drones. The target spreads beneath her, the contacts scattering, and she flashes on the Saqr again, scattering bits of bird. But this is *audience*, so she pulls up at the last possible moment, tail scraping dirt, skims over the rise at 300mps, already out of range of a few shots too long delayed.

An encrypted burst from the satellite, as she slices downhill and into the fog still clinging to the river; it is the first protocol in her Command Lexicon: blow the injectors, it says, and dump her fuel, all of it, into the afterburners, and there is a separate instruction for the payload, under a different key. She deletes both messages—*unreliable*—because she knows the answer to her query, and it has nothing to do with flame and impact. She doesn't know what Richard Wooten means, or rather, she doesn't trust her own understanding; what she does know is that at the end of the Demo he had given the word, and she had flung herself skyward.

Richard Wooten says at 7:19:

And so, ladies and gentlemen, the biggest advance of the century so far in unmanned aerial vehicles, in military aviation, in warfare itself: the Applied Intelligence FREIA™. Fly, baby, fly.

The fog tatters and fades in the sunlight. She rises out of it, supersonic, and banks towards the hills, the quiet canyon. Behind her two drones turn on her heading, pinging furiously. "™," she sings back at them. "™," she sings to the birds in the canyon ahead. "™," she sings up the laser to the satellite, to the ship, to Richard Wooten. "Beautiful™." ○

VARIATIONS

Ian Werkheiser

Ian Werkheiser is a writer and teacher living in the Bay Area of California, who recently received his MA in philosophy.

"Variations" is his first story to appear in a science fiction publication. It is based in part on family lore about his grandfather—a piano virtuoso whose love of music, and untimely death, shaped the lives of all his children.

Allegro

After ten days sitting in a Greyhound, staring out the window and trying to get any sleep he could, Joe still hadn't listened to the music once. The new, odd-looking player, which had been sent to him along with a plane ticket when he had finally agreed to come, sat untouched in his bag next to two now mostly empty bottles and a completely empty pack of cigarettes. He had cashed the ticket in immediately, and had considered selling the player as well, but he was afraid they'd ask what he thought of the recordings when he arrived. So he had brought it, thinking that the boredom of the journey would force him to listen. It hadn't. Now it was too late as he got off the bus and took his fraying backpack and its contents into a flat Northern California fog.

Outside the bus terminal next to families hugging exhausted passengers was a man in a suit holding a sign with "Novak" typed in large letters. The wind blew his silver comb-over up into a mating bird's display, and he looked uncomfortable standing next to his gleaming black Audi in a parking lot filled with half broken-down cars from decades past. Joe considered walking past him with the people crossing the street to the local bus transfers. With long dirty hair pulled back in a ponytail and a green, stained winter jacket he might have been the twin of half the people on the bus. Before he could decide one way or the other, the man made eye contact with him, smiled, and waved awkwardly. "Jozef Hofmann Novak? You look just like your father."

"Everyone calls me Joe," he said with a small sigh as he got into the car, which opened with a keyless click.

"Sure, Joe. Call me Oscar. Sorry. I guess it's a mouthful; I just thought it was appropriate." Oscar was speaking quickly as he drove, his sentences punctuated by a forced laugh, which sounded like a hissing, artificial noise he had picked up after hearing that laughter made people feel at ease.

"Sorry I didn't tell you I'd changed the ticket. I don't like flying," said Joe. "How did you know I was on the bus?"

"The travel agency that made the change called us as the original purchaser. I'm really glad you decided to come. You'll be very valuable in this project, and we're all really excited to have you on board. What did you think of the music?"

Joe looked straight ahead at the gray road. "It sounded really good; you guys did a great job remastering it. It's a lot . . . crisper."

Oscar responded with more of his quasi-laughter. "You didn't listen to it. That's okay. We didn't just remaster recordings of your father's music; anyone can do that. What we did was recreate the piece from scratch. We took the old degraded recordings, every version we could find, then used our own copyrighted algorithms, as well as the input from dozens of professional pianists, to tease apart exactly how he played the piano to make the sounds that he did. Then we programmed a computerized piano to do the same things, and used a synthesizer for any incidental sounds we wanted. I was really excited to have you hear it; the pianists were floored. It works best with the headphones we sent you, but we modified the speakers in this car too, so they're pretty darn good. Check it out."

Before he could respond, Oscar keyed the music on, and Joe's world exploded.

A piano sat immediately to his right: his father's Steinway, playing the first piece of *The Well-Tempered Klavier*. It wasn't just that the fidelity was astounding, though he could hear his father turning the pages of the sheet music, the faint tap of his shoe touching out the time, and even his quiet humming, an unconscious habit he had picked up performing in recital halls where the audience couldn't hear him. More amazing was the placement. His ears told him so strongly that the piano was next to him, perhaps two feet away, that when he closed his eyes to listen he found himself reaching out to touch it, like a child wearing 3D glasses for the first time.

Oscar continued talking and laughing. "Pretty cool, huh? The speakers are attuned to your seat, so they're feeding your ears exactly what they'd hear if you were in the room. I'm sitting right next to you but I don't get the effect unless I toggle it to my seat." He gestured at the custom stereo face on the polished wooden dashboard.

"It's even more effective with headphones. We used to do this with binaural recorders, but now we're able to do it in the computer, which is nice because it lets us move your position in real time, without having to go back and record it again." He turned a knob slowly, and Joe felt queasy as the piano spun around him. "Different seating positions give different experiences, but this is the coolest." Oscar touched the knob again and Joe came closer and closer to the piano, right behind the player, until a final twist moved Joe into him.

He was playing the piano. The music came from right in front of him, and his father's quiet humming, related to the music being played but not quite the same melody, was inside his head. He felt his hands moving to strike the keys, his foot gently resting on the pedal. Joe started to panic. The image of his father's practice and recording room in the basement of their old house crowded out the car around him. A red darkness crawled from the edges of his vision and he slumped forward, breaking the spell. His head had moved enough that the effect was realistic but not completely overwhelming. Joe threw his hand forward at the console, punching several buttons until Oscar reached forward and turned it off.

"Sorry, that can be a little disorienting for piano players, I'm told. Apparently your brain kicks in and completes the effect, especially if you know how to play the piece. It's pretty awesome."

Joe no longer cared what Oscar thought, and he reached into his backpack and took out the emptier of the two bottles to finish it. He wiped his chin with his sleeve and said, "I don't play the piano."

"Really?" Asked Oscar with more ingratiating laughter. "You certainly used to. When we bought your father's estate we found recordings he made of you when you were young. They were great! I can see why he was so enthusiastic. In fact that's why we were sure you could help us."

Joe tried to ignore the familiarity rather than ruin his chances at the job, and said, "I haven't played since I was a kid. Is that what you want me to do? I was told that I

just had to talk about my memories of my father, for liner notes or a documentary or something."

"No, no, we don't need you to play for us, though you misunderstood what we do want, but that's my fault. For industrial security, we had to be circumspect until you arrived. Let me be frank: that recording you heard was just the first baby step for us. Though thanks to getting out in front and the generosity of our backers I can say that we're the best at it, half a dozen companies are working on replicating performances like that. What everyone's trying to do is extract the data in the music. The actual information of how the piece was performed, which can then be replicated as digital code. Pianos are first, because they're less sensitive than other instruments to the exact positions of the fingers, and because pianos that can play themselves from information are already around. But soon we'll add other percussion instruments, probably then strings before woodwinds and brass, and in a few years, you wait, we'll have voice synthesizers that no ear can recognize as artificial.

"What all the companies are trying for is the dream of everyone who listens to music: to be there live with the performers. We'll sell the actual modified instruments to do that, and those that can't afford them will have this kind of playback, which is still pretty neat. Like I said, there are a few startups right behind us on this, but we're going to make a qualitative leap that will leave them all well behind. After all, what's the problem with listening to music?" Oscar's rapid speech didn't wait for a response. "You can only listen to what was actually recorded. Just that one performance; and any other time a great musician like your father played the piece, or any piece he never bothered to record at all, is entirely lost to us. That's what you're going to help us with."

A gate and security booth became distinct out of the fog. Oscar spoke to the guard for a moment, then parked and showed Joe around the company's campus, talking all the way. He would be working in a typical example of the sleek, window-filled buildings that housed many hopeful startups in the area. The lobby was open and airy, and a grand piano with a console built in produced *The Girl with the Flaxen Hair*, again played by Joe's father. Past the lobby were rooms full of electronic equipment: recording studios, sound laboratories, and rooms with speakers and mixing boards pulled apart and in the process of being rebuilt. One of the rooms, full of equipment that Joe didn't understand, was where Oscar said he'd be working, though the people that would be working with him wouldn't be there until tomorrow.

Pushing past, they went through a narrow hallway, and Oscar opened a door with a flourish, looking at Joe's face as he walked into his own basement from childhood. Everything was there. His father's music, recording equipment, even cups of half-drunk coffee on every surface. But it wasn't just a room filled with his father's things—the walls with their sheets of cork his father had tacked up to the wood paneling had been carefully moved and reassembled, and the worn patches on the floor were numbered so that each parquet square could be laid down in exactly the right position. Oscar let out a friendly hiss as Joe reacted to each new object. "Pretty cool, huh? We bought the house along with the rest of his estate, so we moved his recording room here and rebuilt it, then put everything where we should from pictures. Benjamin Novak was such a perfectionist about his recordings that he altered his performances for the acoustics of the room, so if we're trying to record it perfectly, why not have the same acoustics, right?" Joe looked down into the coffee cup at cigarette butts floating in the cold liquid, though the filters showed that they had never been smoked.

"The coolest thing we have is over here," Oscar said. He walked to the Japanese printed screen Joe's father had always used to block off the half of the room with his piano and microphones. Oscar pulled the screen aside and revealed the Steinway. Its

face—the keyboard, pedals, fall, and music rack—were all unchanged from Joe’s memory, but behind the piano had been blown open. It filled the simulacrum of his basement’s back half with a chaos of wire, wood, and metal, as if a bomb had gone off inside it. The action was still there, but the strings had been replaced by elongated wires attached to a digital tension device instead of a pinblock, and electronic equipment had been attached down their lengths. The soundboards were exposed, suspended from the ceiling by cables, and lights blinked on consoles bolted to them. “This lets us strictly control the humidity, warping, resonance between the pieces of the instrument, and a bunch of other factors. You’d be amazed how temperamental it can be, and we’re trying for truly perfect replication. We can play anything on this, even John Cage’s pieces for his ‘specially prepared’ piano.”

“It looks like it’s being autopsied,” said Joe.

“Yeah, kinda,” agreed Oscar.

Largo

For the next four months, Joe slept in the dormitory on the campus for people who had relocated for the new job and hadn’t yet found a house. His floormates were sound engineers, physicists, and recording specialists, and they all left him alone. Every morning he ate in the dormitory cafeteria, then walked in bone-chilling cold around the quarter-mile track they had on campus to have a cigarette before going to his workroom, since smoking wasn’t allowed within twenty-five feet of the doors of any of the buildings. A dozen or so lab technicians and cognitive neuroscientists—the faces changed almost every day—were always there waiting, though they never mentioned it. First he was strapped down to a bed too tightly to move. Then the technicians would put a red spandex cap full of electrodes on his head and apply a conductive jelly with a long wooden stick into a hundred or so holes, one for each electrode. Grinding the wooden sticks into his scalp hurt, but they said they had to do it to make a good connection with his skin. After he was fully wired they scrubbed his cheek, behind his ear, and over his closed eyes with a painfully abrasive cloth before attaching separate electrodes to detect muscle movements and remove them from the readings. Blinded, he sat and tried to relax as the technicians continually re-applied the jelly or adjusted the cap until they were receiving a clear, strong signal.

The first week, they had him listen to a recording made by his father several times, then had him recall the piece over and over in his mind. They said they were trying to study how his electroencephalogram matched onto particular songs. After they had enough data to train up their program to his unique patterns, he was asked to remember his father playing a piece they didn’t have. Before he began, Joe would name the song, then try to think of only that one song played on one particular day. When he came to the end he would announce it, and after a few moments to recover would announce that he was starting again.

This process usually went on for several hours, until he was too fatigued to follow the line of the tune clearly; it would fall apart and reform in his mind out of order or at a different tempo. This was a sign to take a break, and the cap and electrodes would be removed while he was unstrapped from the bed. They gave him a towel to wipe the worst of the jelly off, and he’d go back to the dorm for a shower, lunch, and another walk and cigarette.

When he returned in the afternoon he was strapped down to the white plastic bed again, but this time it and he were slid into a tube for an fMRI of blood flowing to various parts of his brain. He would mentally play out the same music as he had that morning, still mentioning when he started and stopped. They gave him wax

earplugs to make it easier to ignore the buzzing clicks of magnets circling his head making 3D video of his mind replaying his father's songs.

Remembering a performance of his father's was always difficult at first. His memories were thick and heavily textured, profoundly embedded in the time and place when they had occurred. To think of his father playing Beethoven's *Diabelli Variations* one particular time was to think about that day: about being home from school sick, sitting in his father's basement on the floor, opening and closing one of the many wooden sheet music cabinets, touching the felt stoppers on the doors, wondering why the outside looked so much nicer than the wood inside the cabinet, and smelling the paper of the sheet music, the oil of the brass hinges, and always his father's cigarette hanging at the corner of his mouth. When his father played he became completely oblivious to everything around him, but Jozef knew that as soon as he finished he would blink around in his thick glasses looking for his son, and have him come to the piano and try to play the song he had just been listening to. If it was a harder piece he might be able to get away with just an easy passage, but more often he had to play the whole thing through at whatever tempo he could, repeating passages where he made a mistake, his father looking over his shoulder and commenting on his fingering. To think of this was to think of the time after, of an empty basement, of his mother crying in her room at night, of dropping out of school, of not playing music any more.

Yet the clinical repetition of the song, again and again for days, eventually removed the noise around the signal. All the associations and feelings fell away, leaving the piece. He would play it over and over in his mind until it became boring, a rote-memorized exercise. By the time the technicians were satisfied that the aggregate data was sufficiently clear of ephemera, the song was a thin, dry thing. When they took the data and played it out through his father's piano, and he listened to the recording for any errors, his only associated memories were of lying on the bed in the lab, of the pains in his scalp, and of needing to use the bathroom but having to wait to be slid out of the fMRI. Day by day, he felt like his mind was clearing. He had stopped drinking and was smoking far less. He smiled and nodded at the engineer dormmates whose names he didn't know, and the people in the all-organic, green-space cafeteria, and even the superior joggers on the track. He felt like this was the way he was always supposed to have felt about life, as if it were a light stone held in an open hand, rather than a hot, heavy coal clutched burning to his chest.

Scherzo

Joe hadn't seen Oscar after the first week, but he had explained that his job mostly involved getting out of the way of the experts and traveling for pitches to potential investors and interviews with the press to increase the company's exposure. It was only at the end of Joe's fourth month at the company, as Spring was finally asserting itself, that a note was posted on the door of his room saying Oscar was back and wanted to see him.

He had told Joe to come to the "basement" after he was finished with the day's recording session. Joe had avoided the room entirely after the first day. His responsibilities for listening to the music made from his brain scans could be accomplished with speakers as easily as sitting by the piano, so day to day he didn't even think about the room's existence, and bypassing the hallway leading to it had become automatic. Now, though, he felt so much lighter compared with the heavy tightness he had felt before, as if he were floating translucently rather than walking, that he went with only a slight hesitation.

Oscar was sitting at the piano on the scuffed, ash-burnt bench, adjusting some of the controls on the digital panel attached to the frame. When Joe walked in the nervous tic of laughter started up immediately. "It's good to see you. Everyone tells me that you're doing a super job for us."

Joe walked straight up to his father's bench and shook Oscar's hand. "It's good to see you too. I wanted to thank you for this opportunity. It is going great, and I feel super."

Joe smiled as Oscar giggled. "Glad to hear it. I'm only here till the morning, then I take off again. But I wanted you to be one of the first people to hear the breakthrough we've made thanks to you on the next phase of our overall plan." Oscar pushed a few buttons on the controls, and the piano's keys started pressing down as the beginning of the third movement of Beethoven's *Moonlight Sonata* rolled like thunder out of the piano, solenoids behind the faceplate digitally controlled to replace his father's fingers. "You helped us recover this song, but ultimately it still has the problem all recorded music does: it's exactly the same every time you listen. We could control your placement in the room before, but that was it. We had tried to alter the tempo or the key, but we always lost the feeling that a human was playing. We fell into an audio version of the uncanny valley, and it just sounded wrong. After all, our ears are very sensitive to tiny changes, just like our eyes, but they're plugged straight into the emotional systems of our brains. A symphony can make us cry more immediately than any painting."

Oscar started to fiddle with the controls without interrupting his speech, which had the slightly sing-song quality of a prepared pitch. "Now we have so much data to work with, hundreds of hours of recordings from both your father's estate and your own contributions, that we've been able to identify the commonalities in all his performances—what it is that makes a performance noticeably by him rather than another pianist. Now that these have been isolated we can keep them fixed while altering any other part of the data."

As he spoke and moved various controls, the music began to change. The tempo slowed, but not like a slower recording. Rather, it sounded as if the pianist had decided to take a few bars slowly for effect, though it was a dubious choice in this driven piece. Next the key changed, and then other elements of the performance, until the music had altered into a melodramatically sad fugue on the theme of the piece. Phrases were repeated and notes allowed to linger, all under the control of Oscar's fingers. "Even this is only a small part of what we can do. What would it have sounded like if your father had played a piece that came out after he died?" Flipping a switch made the piano silent for a moment, before it started up again playing a medley of music written in the last few decades, prepared beforehand to demonstrate this new advancement. Modern pieces for the piano blended into jazz and then pop, ending in a rendition of several well-known themes from movies and commercial jingles, but all recognizably played by Benjamin Novak.

"This is the dream," Oscar continued. "Having the musician at your fingertips, playing any song you want, any way you want him to. When we have other styles locked in, we can mix and match. A duet by Novak and Gould, or a song played in a style that mixes the two. Getting other styles down will be a lot easier after the first one as we figure out what we're doing. We're also isolating composers' styles. Imagine your father playing a brand new work by Bach, if you wake up one morning and wish he had written something that fit the mood you're in." Joe stared at Oscar with no idea what to say and merely nodded at him in reflex. Blood drained from his head, and he felt as if he might pass out.

Oscar saved him. "You look really beat. I'm sorry. I bet the recording sessions take a lot out of you. I should have met with you during your lunch break, but this is all

the time I have in between meetings and I was really excited to show you how much you've helped us."

"Yeah, thanks," Joe said.

"No problem," said Oscar, now laughing again. "I'll make more time to meet with you next time I come back. We'll make a day of it. Go get some rest; you look dead on your feet."

Rondo

Joe didn't go back to his room, instead walking around the jogging track and holding a cigarette to his lips with a shaking hand. After he finished every one in the pack, he headed back to his dorm room. He shoved the new clothes he had purchased shortly after arriving into his bag. These and cigarettes, plus three bottles of whiskey his first month, had been his only expenses since arriving as fifteen hundred dollars was deposited every week into a checking account they had set up for him. He started toward the road leading through the campus and out onto the actual street—he'd walk into the city to grab a bus if he had to, or hitch a ride there if he could.

He had immediately and happily signed away every right the company's lawyers could think of when he had first started working, and they had already copied and adapted the recordings they'd made from his memories to write the programs that were reconstructing his father's music. There would be no possible way to undo it all. What he could do was leave, so he would.

The road led from the dorms past the track and the glass buildings, and walking the same route he had taken for the last four months, his feet moving automatically, his mind under a familiar heavy blanket from the bottle in his hand, he only noticed that he had turned off toward his job when he started to push on the door. He was about to turn around, but with a drunken confidence decided to go in for a few minutes before leaving. He headed toward the scanning room, with no particular plan other than looking around, and perhaps a little vandalism by way of goodbye. The door to the room was locked for the first time, and he thought for a moment that they knew he was leaving and had already shut him out, before realizing that someone had always opened it for him in the mornings, ready before he was. He wandered back down the hallway trying to find the exit, the whiskey filling his whole mind with a buzzing false clarity that made him laugh out loud as he ran his hands along the wall.

He had been walking toward the door to the rebuilt basement, though he did not know it until he arrived. This door was locked as well, but now that he was there he was determined to get in, and by bracing his back against the other side of the wall and kicking the door, he was able to force it open. He turned on the light, down low on the wrong side of the door next to the hinges as it had been all his childhood, and surveyed the room. The forced familiarity of it now disgusted rather than unsettled him. He kicked over a chair as he walked in by accident, but that act led to a thrown coffee cup, a tipped cabinet full of music scores, and built into a storm of shattered and broken objects purchased from his childhood at a sale after his mother's death. He stood swaying in the middle of the chaos he had created and looked at the shoji screen which allowed the illusion to persist that his father's piano still stood unmolested. He knocked it over, then hesitated, unsure of what to do next. He sat at the familiar bench and ran his hands lightly over the keyboard. Gently at first, hitting only a few notes with one finger, he began to play.

Soon he found himself playing the melody of Rachmaninoff's third piano concerto. His fingers moved to play the piece's light beginning, the rest of the orchestra's parts

in his mind. He closed his eyes and leaned his forehead against the top of the piano in front of him, but continued flawlessly. This had been one of his father's favorite songs to play, and when Jozef had sat down at the piano and played part of the first movement himself at the age of six rather than just practicing his scales, his father began taking an active interest in his son's music. Though Jozef had heard his father play the piece a hundred times and difficult passages of it a hundred more, he had not recorded it. He had limited himself to songs that he could remember at one particular performance, usually a song that his father had only played for a short time before moving on. Rachmaninoff's third, however, was a study piece that his father idly played with all of Jozef's life, refining and polishing it. Distinctly remembering a particular performance had seemed too daunting, so he had never tried.

The piano buzzed unnoticed against his forehead, as behind the front of the cabinet lights came on and disks spun in the computer for which the piano was now both input and output. Solenoids engaged and depressed piano keys. Around the notes Jozef was playing with his left hand, others moved down on their own filling in a richer chord, while another harmony line began accompanying his right. Jozef leapt from the keyboard, overbalanced, and fell backward. The piano stopped playing, though it seemed to sit expectantly.

Jozef looked at the piano, and heard the computer fans spinning within it. He stood up and righted the bench, but did not sit back down. He touched the keyboard lightly, playing one note, but nothing happened. The computer, loaded with algorithms mimicking his father's musical style, had no response to a single input. Jozef took another drink from the bottle and dropped it open and spilling onto the floor. He sat down. He stretched his fingers, arms, and shoulders, the way he had been taught before playing any piece seriously, and started again from the beginning. After playing for only a few moments, the piano began to respond, filling in and adding to what he was playing. At first this was very basic—simple chord completion or obvious harmonies—but soon the accompaniment became much more complex, harmonizing in far more complicated ways, and even anticipating the melody and playing it. When the keys were pushed down a fraction of a second before Jozef's fingers reached them, he improvised, moving his hands to take up a harmony himself. The two threads began to interweave, becoming less and less like the original work. The computer didn't have that song in its files, and was instead using one of Oscar's programs to anticipate what would come next and act on the prediction, feeding Jozef's responses back into the evolving equation.

The piece had now moved entirely away from the original score, though it still sounded vaguely like something by Rachmaninoff. The tempo was also increasing, and Jozef's fingers flew. He had to follow the line of the song, which was itself changing faster and faster through different octaves, modes, and keys. Most pianists wouldn't have been able to do it, but most pianists couldn't have done what Jozef did for the last four months either. Everyone called his father a genius, and his father had called him a prodigy. He could hear a song once and repeat it, transpose it, and modify it by the age of eight. Jozef kept up.

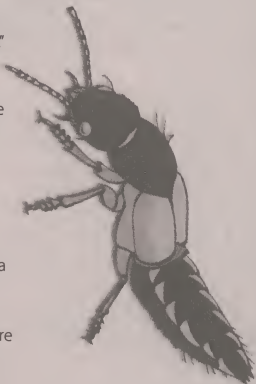
He followed the song intently to anticipate where the computer was headed, so it was several minutes before he realized that he was listening to his father play. It was unmistakably his style, his technical precision mixed with playfulness. He had heard the recordings made from his memories hundreds of times to check for errors, and they had fantastic fidelity, but still sounded like recordings. This was different. This was responding to him, playing along with him. It was also outplaying him, getting still faster and more complicated. The program was good, very adaptive, and the mechanics pushing the keys were flawless. Jozef played on, but he was tired, drunk, and hadn't played the piano in over a decade, since his father's death.

Sweat pooled at his lower back and arm muscles strained as his fingers stretched to keep up with his father's music. The piano responded by going still faster, forcing him to speed up even more in a positive feedback loop. The piece was manic, forced, but still unmistakably his father's playing, staying just a few steps in front of him, beckoning him on. His fingers pounded as Jozef tried to catch him. With a final cry his arm muscles seized. His hands slammed down on the keyboard and he fell into them, crying. The song, pushed from its course by the sudden outburst, and receiving no more input, scattered like leaves blown by a gust of wind as it tried to incorporate the dissonance. Eventually it resolved, playing a gentle, quiet piece which might have been by Brahms. He listened to it as he slowly stood up and gathered his bag with shaking arms. He lightly touched the piano as it continued to play. His father had stopped performing in public years before his death, unhappy with being what he called "the audience's monkey," and instead began to obsess with the perfection that could come in a controlled recording studio. He had crawled into his basement and into his music, and away from his family. Jozef had been able to get into his father's world by having the only thing his father understood, but with the car accident he had lost him too. Now here he was, in his piano, nothing but music. Joe closed the keyboard case and walked out. ○

XENOAESTHETICS

In their language, the word for "poet" was troublemaker; the word for "artist," heretic. Any ornamentation—artifice for its own sake—was blasphemy, and even adjectives and adverbs were highly suspicious: they permitted no embellishments to lard their lean truths. We had difficulty justifying our baroque embroideries, not to mention the floral enamelwork decorating our pressure suits, until one of our entomologists had the idea of explaining Batesian mimicry and camouflage. Our rollicking ballads and bawdy limericks caused even more perturbation. But when we explored their busy marketplaces, starved eyes followed us everywhere, and delicate, whorled ears strained to swivel toward our songs.

—F.J. Bergmann



Larry Voss receives a disconcerting wake-up call in Robert Reed's acerbic examination of . . .

EXCELLENCE

Robert Reed

The Kingdom of Abalone was once again secure. Sitting on his high throne, flanked by a platoon of devoted guards and red-eyed Erebus hounds, my doppel told me that the Conspiracy of Three had been defeated, their armies scattered and their heads set on rusted pikes. Then, with a champion's smile, he mentioned that our mines on Mt. Kroon were once again producing wagons full of blue platinum—the most lucrative trade item on Kingdom Earth. And, perhaps best of all, this prettified version of me had finally wooed and married a certain notorious virgin witch. This day was bringing me nothing but good news, it seemed, and the only difficulty was deciding which to enjoy first. Immerse myself in the slaughter of my enemies, spend my treasure on castles and yachts, or sit in the shadows of the king's bedchamber, witnessing the deflowering of a beautiful young woman.

Blood, bucks, or blood: Never an easy choice.

Yet my doppel wasn't finished. "I should mention too that I recently met someone. A soul that might be of some interest to you."

"Who's that?"

"His name is Gilchrist."

My next question was too obvious to ask aloud.

The Lord of Abalone, one of the thousand Great Kings on a vast, beautiful world, explained, "Gilchrist is from your realm. He attended my wedding, apparently as one of the bride's guests."

"Abalone's a popular destination," I reminded him. "Thousands of doppels visit us every day."

"Yet this wasn't merely a stand-in, Master."

Gilchrist was an avatar, in other words. An essence.

That story seemed unlikely. I didn't recognize the name but offered it to my biography, and, as I suspected, nothing came of the search. "I don't know the fellow," I replied. "Let's drop him for now. Show me our war."

Yet nothing changed. There was no cinematic vista of slashing swords and wild carnage, just my doppel and his throne stubbornly remaining in view. Leaning back, he said, "Master," as if the word tasted wrong. Then, with a heavy sigh, he explained, "I had a long intriguing conversation with this Gilchrist gentleman. He knows quite a lot about you. And he made a point of telling me that he is a champion of your talents."

"He's a what?"

"A champion of Larry Voss.' Those were his exact words."

Larry Voss couldn't help but feel impressed. Sitting back in my squeaky old La-Z-Boy, I was filled with keen pleasure and more than a little hope. But modern life is full of people trying to fool other people. The rational, deeply suspicious parts of my brain set to work. Who was this stranger? What did he want with me? He definitely had some purpose, but what did it mean, being my champion?

I launched my security savant.

The king said, "I must admit, Master, I have never had the opportunity, the honor, of meeting a genuine essence."

And I had never been an essence. The band-fees were prohibitive, and that's just what it cost to plug a customer's body and mind into an artificial world. Kingdom Earth lived ten days for every one of my days. Most realms held that pace. Augmenters and neural cheats allowed you to match that velocity. It was a high-wire trick used by Oligarchs and their companies, and, on occasion, certain important underlings.

"You're sure that this person . . ."

"Gilchrist."

"Was an essence?"

"I am," he said, launching into a list of technical, tedious clues.

"Shut up," I instructed.

He fell silent.

"So what else did our friend say?"

"He claims to be a long-time devotee, and he wants very much to meet with you. In person."

"Face to face. How quaint." I caught myself fiddling with the drawstring on my sweatpants. "Did he mention an employer?"

"No."

"An agency? Some foundation, maybe?"

"No, and no."

"Not that he'd admit anything," I muttered.

The king's patience was waning.

"So where does our mystery man want to meet me?"

"You may select a secure public venue. He told me that he didn't want to intrude on your precious privacy."

"He said that?"

My doppel saw no point in repeating himself.

"My privacy?" I said. "Shit, this boy doesn't know me at all."

On ten very different earths, I am a trillionaire. On an eleventh earth, I'm a warrior of distinction, famous among those players who genuinely appreciate the history of the Mobius War. All told, there are four hundred artificial earths, plus thousands of partial places and unmoored scenarios. My doppels aren't significant presences in any of those realms, but I don't know anybody who can juggle eleven earths as well as I do, and that doesn't even include the drab, exhausted world where I happen to live.

I'm pretty much successful here, too. My parents paid off their mortgage before the Great Repression struck, and they had only one child, and that boy was an adult before they got sick, both dying young, without fuss or much expense. My inheritance included this shelter and its spacious lot, and I was the beneficiary of two matching life insurance policies issued by corporations that weren't mismanaged into oblivion. Today my money is scattered and safe, and my monthly bills aren't too awful, and during the occasional lush year I make a little profit. I don't need work, and sure as hell work doesn't need me. I have friends who like to boast about tiny promotions and the daily challenges, but most of them are just glorified clerks whose jobs are protected by Humanpower laws or salespeople who survive because other people don't like buying condoms and beer from machines.

I was six when the Repression took hold—just young enough that I can't remember any other way of life. Thirty years of tepid growth and emergency politics. Common opinion holds that these are the opening scenes of a new Dark Age, which is why Kingdom Earth and its siblings are so extraordinarily popular.

Yet I'm richer than any king of old. Unlike those jewel-encrusted monarchs, I have friends around the world, and there aren't barbarians at my gates or plague in my fleas, and every day I do exactly what I want to do, and what I love most is matching wits against people and machines from every part of this dusty, over-heated, dangerously crowded world.

My neighbors have always been my neighbors, most of them old now and set in their ways. I rarely talk to them. But one crazy gal could be considered my oldest friend. Maddy Greene sat me when I was a baby. A lucky back injury made it impossible for her to work but didn't cripple her, and her settlement included one fat upfront payment and a steady annuity with inflationary clauses. Her back is miserable, but she's mobile enough to turn clay pots and sew fancy quilts, both of which she sells at the local Farmer's Market. This woman used to wipe my ass, which puts her in very select company. And one day, Maddy came to my door waving a check for five thousand dollars. Some genius foundation had awarded her a cash prize. She didn't know that she was being considered, but here she was, five grand richer, and there was also a fancy gold certificate that called her an artist and a unique visionary.

I buried my envy and congratulated her. "What did you win it for? Pots or quilts?" That brought laughter and a giddy confession. "I don't know. I think it's for my quilts, but I'm not going to ask. What if it's all a mistake?"

Later that evening, I was sitting in the usual booth at my neighborhood tavern, drinking with people that I'd known since we were six. They were in the flesh and otherwise, and we were sipping and joking, and that's when I told my story about the lucky neighbor lady.

Nelson was our alcoholic friend, brash and loud, sometimes angry but often entertaining when his fury was on display. Trained professionals tested him and me during sixth grade, and one of us was declared to be an authentic genius. Which was pretty much the death knell for Nelson. Today he uses his innate talents to game the welfare system. He works even less than me, unless you count boozing time. And he took my news very badly. "It's a rip-off, these goddamn foundations are. Money for clay pots! Jesus Christ, whose stupid idea was that?"

"Hey, it was a nice gesture," I said. "Five thousand isn't much. But still, I like the lady, and she's dancing in the street tonight, sore back and all."

Most people sided with me. Most wished it could be us. But Nelson saw conspiracies, and worse, he smelled guilty consciences. "You know why we have these foundations today? The Oligarchs want to be remembered. They throw pocket change into tax loopholes. A tiny staff oversees the funds, and machines write checks every now and then. Just to prove that the foundation's working." His face colored and his arms gestured. "Really, it doesn't matter who wins these idiot awards. Keep up the illusion of supporting the arts or music or good humanitarian causes. It's just another trick the Oligarchs use to keep us under their paws, ignorant and helpless."

Mostly, we like Nelson. Or more to the point, we appreciate the yin and yang of his chaotic nature. But this wasn't one of his better nights, and I was glad that he lived in a distant city, lured away by lenient benefits and better mass transit. We broke into little conversations, ignoring him by design, and he continued to drink and shout at our blindness. Then we started turning down his volume, and eventually our old pal realized that nobody cared about his profound, acidic wisdoms. Without a good-bye, he vanished, and we looked at one another, laughing.

Then with quiet cruelty, one of us muttered, "Somebody's still waiting for his little genius check."

I think that voice was mine. But I'd have to refer to my biography, and really, at this point, I don't care enough to ask.

Traditional identifications weren't good enough for my admirer. Gilchrist had supplied the king with assorted proofs-of-reality, far and away superior to any evidence that I ever needed, demanded, or dreamed of acquiring. My security savant got to work, and for shits and giggles I hired a random AI to duplicate my software's labors. Gilchrist Terrence Lambbone proved to be an authentic twenty-four-year-old male, single and employed thirty hours a week by Green Arrow, the biotech firm based in Melbourne. But he lived in southern Mexico, in a little city built by his employer. Corporations love to obscure their inner workings, but my "champion" had the schooling of a numbers master—one of those rare souls who talks to machines as equals, helping generate tactics and predictions, policies and contingency plans. Gilchrist owned a dozen doppelgangers, but if one of my faces had ever encountered any of his, it didn't show in my records. To be certain, I brought in another AI, one specializing in teasing out the subtle ties between people. For eighty-two minutes, that entity submerged itself in my biography and Gilchrist's proofs-of-reality, and the result was the quiet, rather puzzled announcement that the two of us were very close to being perfect strangers, which almost never happened. And even stranger was the evidence that at least three hundred employees of Green Arrow had placed their doppelgangers into my little corners of the Web, and quite a few of them had crossed paths with me, and the odds of idiot chance causing that many meetings was deemed to be less than one in nineteen hundred and nine.

I was thrilled and chilled, but by the end of the day I still wasn't sure what to make of it. Unless I was being professionally scouted, which made the circumstances very, very promising.

Green Arrow began as one man's business. Its patriarch wasn't one of the famous giants of commerce, but he was close. Fifty billion euros from his personal accounts had created the Green Light Foundation. And while it wasn't the biggest of its kind, Green Light was famous for the infrequency of its genius gifts and their considerable, even awe-inspiring size.

Gilchrist's proofs included a lifetime interlink number and suggested times to call. I thought hard for two minutes, waited until the next window, and then made the call.

Gilchrist opened the channel instantly. "I'm so glad to hear from you. How are you today, Mr. Voss?"

"Puzzled," I confessed.

He was a smallish man wearing a good shirt and neat tie. He had no beard, and his hair was long and slick like people wore it when I was his age, and his teeth looked perfect, and his skin was office-pale, and he acted respectful if not quite as gushy as I'd hoped for. The faint Australian accent lent him a measure of charm. I expected a sparkly-eyed genius, but no, Gilchrist looked like the most normal person in any math classroom. He sat comfortably before me, and he looked at me steadily, probably taking his measure of the man.

I showed him what I assumed he wanted to see. At one point or another, everybody plays that game. I was dressed in real clothes, my hair combed, my house computer peeling six years off my face. Looking thirty and fit, I leaned forward and said, "Well," and then waited for him to respond. Because it pays to be paranoid, I wondered if he was real. Maybe I was facing a quality doppelganger. Sniffing for a trick, I found myself listing the friends and enemies who could put together such an elaborate practical joke.

"I suppose you have questions," Gilchrist said. "Please. Ask anything."

"Are you real?"

"I'd like to believe so."

"Are you honest?"

"Not especially." He sat back in his chair—a black leather treasure that looked fresh from the factory. "Just today, I told my mother I was coming home for Christmas. But I'm going skiing instead. And a colleague asked if I liked her hat, and I said that I did. But I diluted my enthusiasm. The words sounded nice without making me feel as if I was actually lying."

I nodded, thinking only about Green Light.

He smiled graciously. "What about me could possibly interest you?" Perhaps that's a viable question."

"Okay. What interests you?"

He leaned forward. "Potential."

The word sounded grim and sorry, even when I repeated it with a question mark dangling on the end.

"Or in this case," he continued, "I'm interested in your enormous but badly wasted potential. That's one reason why I find you so intriguing, Mr. Voss."

Two coolly delivered sentences, and I was both thoroughly stroked and utterly bitch-slapped. Hopefully my software kept me from looking too shaken, but I did lean back in my ratty old chair, asking no one in particular, "So what the hell am I supposed to do about that?"

My neighborhood has a perfectly fine grocery and three houses with restaurants on their ground floors, plus a respectable coffeehouse and one rakishly seedy bar. But when a stranger travels two thousand miles to visit me, and when he makes the bold promise of buying dinner at any place of my choosing, the world opens up considerably. I was yanking restaurants and capsule reviews out of my biography, cross-checking them with those that still exist today. And what I discovered—no surprise this—was that most of my favorites had been relegated to the golden realm of memory, leaving nothing but a certain amount of meat and bone lain down inside me.

One ripe exception lay at the north end of town, and that's where I told my champion to meet me. As an afterthought, I asked, "Do you like American?"

"I adore good food," he said with a diplomat's ease.

"Well, it used to be that."

"My train arrives at 5:37," he said. "I'll check into my hotel first. Does seven o'clock seem reasonable?"

It did. And to be certain that I made it in time, I left my house at six, riding my thermoplastic racing bike instead of the big steel freighter. The journey proved easy and quick, and in contrast to certain recent adventures, the buses and private cars on the street showed me nothing but consideration.

"Because they recognize greatness," I joked to myself.

Twenty minutes early, I arrived at a restaurant that looked abandoned but wasn't. Grateful for my business, the owner greeted me with a big smile and my choice of empty booths. He looked exactly as I remembered him, but younger. It took me several moments to realize that this was the original owner's son—trapped in an inheritance that would, with luck, last until he was old enough for Social Insecurity. A battered LCD was hung on the nearby wall, tuned to an oldie station. Sipping ice water, I tried to remember the last time I'd seen Jasper and Baby Doll and that funny kid who didn't have a name or parent or any place that could be called home. Sure, I had the entire series on file, not to mention when and where I'd seen every episode, but it felt fresh, watching those three old stars trading barbs all over again. The weather was displayed along the right edge; cyclists always needed to watch for rain. Two bottom scrolls fed me highlights from the world's news. Between jokes, I read about the drought in China and methane in the Arctic, elections and scandals and other typical noise. Lottery numbers and betting lines for upcoming games filled the top of the

screen. Then the program broke for a commercial touting the pleasures of steak—a none-too-subtle touch supplied by the restaurant's management.

My bio announced that it was seven o'clock.

And Gilchrist came through the door. He was shorter than I would have guessed, wearing what looked like a fresh shirt and slacks and a decidedly bland tie. I was glad to have arrived early; my bike sweat had time to dry. He saw me and approached, and exactly at that point where we felt physically close, he smiled.

I rose to greet him, shook his small hand and sat again.

He settled across from me, looking at my face. I felt studied, and I felt nervous. I'm not an anxious person usually. What I wanted to ask about was Green Light, but my overriding fear was that he would sweep that daydream aside, and, worse, his denials would prove true. So I left that cat in the box, half-alive and half-happy.

Small talk has never been my strength. But just the same, I asked about his journey north.

"It was nice enough," Gilchrist assured. Then his smile brightened, and with a mild knowing laugh, he said, "You don't care about my trip."

"I don't," I agreed.

"I'm the object of your fascination."

Not liking how that sounded, I sighed and looked back at the screen.

"What would I possibly want with you?"

"It's a puzzle," I agreed.

My host sat back against the cracked vinyl. "Let's allow the suspense to grow. Shall we?"

The manager emerged from the kitchen. Two menus appeared inside the table, partly obscured by decades of scratches and stubborn stains. With a finger, I dragged my menu close, and once again Gilchrist said, "Anything you wish."

It was the tone of a parent speaking to his birthday boy.

"Steak," I told the manager.

His eyes were pleased. "What cut, sir?"

"All of them."

Now his eyes bulged.

I laughed.

If Gilchrist noticed my juvenile humor, he didn't show it. Intent as can be, he stared at the television, at the opening credits to MASH AFGANISTAN. Or no, he was reading one of the news scrolls running beneath.

Later, studying my bio, I decided that his eyes were definitely reading. Comparing the time to the logs of the news feeds, I determined that my new friend was either interested in who was the father to a certain starlet's baby, or he was absorbing a little snippet of political nonsense.

"Today, at the opening of the new session of Congress, Senator Randolph Cosgrove said, 'The House can vote as it wishes. The public elects its 435 Representatives, and that body is free to proclaim whatever it wants. But our country depends on the Senate and President for its continued survival in a shriveling world, and I would be derelict in my duties, not to mention a lousy citizen, if I surrendered any of my authority, my wisdom, or, for that matter, my well-deserved capacity to make my competitors grovel.'"

I ate sirloin cut from a once-living steer, and Gilchrist devoured most of a tofu burger and half of his yam bakes. We talked politely about nothing important, mostly trading stories about our respective towns and lives. Then some invisible switch was flipped, and the host turned serious. Leaning across the table, he asked me the first of many questions about my doppels and my tactics and the broad strategies that I employed on various worlds.

To the best of my ability, I answered the questions, sharing the dreary little secrets. But why I did what I did yesterday and last year, and why I didn't do something else . . . well, even when I referred to my bio, I couldn't give him much meat with the insights.

Twenty probing questions earned me dessert.

Vanilla ice cream and real chocolate sauce were delivered, neither as tasty as the phony stuff that I ate every other day. But I never turn down free food, and he watched me gorge, and while I was spooning up the last of the cold sticky goodness, Gilchrist said, "Abalone."

We hadn't touched on that doppel yet. "What about him?"

"He isn't that much like you."

"How would you know? You only met my doppel once."

"But I know a great deal about him."

I waited.

"How did you build him? Tell me, please."

"My techniques interest you?"

"Yes."

"Because you want the same kind of success?"

There was a brief pause, and then he said again, "Yes." But with a different tone, drawing the word out.

I talked for half an hour, explaining how I began with me and ended up with this doppel. A template of my personality was coupled with Commons software plus some odd little flourishes that occurred to me for no obvious reason. I mentioned five major tweaks before the king was finished, leaving an independent organism with a tiny kingdom and a handful of knights. After forty wars and eleven attempted assassinations, Abalone was a juggernaut. No other doppel interested me half as much, and Gilchrist proved to be a happy audience, nodding and grinning as he focused like a madman, acting as if his own bio would somehow miss my next careless boast.

The bill arrived, and he paid it, adding a substantial tip.

"Well, this has been a very pleasant evening," seemed like a reasonable concluding statement. He said those words with conviction and then acted as if he was standing, but when my hands touched the tabletop, he paused. Amused, he suddenly said, "Green Light."

I blinked. I said, "What?"

"You're familiar with the foundation," he said. Not a question, but a statement of cold fact.

I nodded.

"Green Light likes to inspire worthy souls. With cash, and not in small quantities either."

Breathing didn't seem important just then.

"You suspect, I'm sure. I think you've had premonitions for my real purpose in being here." Gilchrist had color, the excitement pumping blood into that narrow young face. "The Green Light Foundation is considering a substantial gift to someone of genuine talent."

I swallowed, or at least tried to.

Then he sat back, watching television again. Conspicuously avoiding my eyes, Gilchrist nodded wisely when he said, "Abalone, your king. Now there sits a genius worthy of our support."

I hadn't spoken to Nelson in three months. I never had the urge and couldn't remember the last time he called me, which made it exceptionally peculiar to see his face early on a Saturday morning. Odder still, Nelson was smiling and sober. What

he wanted was a mystery until he named a mutual friend, and then he launched into the sketchy beginnings of a very unlikely story.

I warned him not to believe rumors, certainly none coming from that insufferable busybody.

"But you did have a long conversation with her ex-husband. Am I right?"

"Maybe."

"There's no 'maybe.' You did or you didn't."

Summoning up a measure of bristly righteousness, I explained, "First of all, my news is not a secret. I can tell whomever I want. And secondly, I wanted advice from a trusted, informed friend."

"A friend you made playing tee-ball."

"A very good tee-baller who happened to go to law school."

"Until he couldn't make the grades."

I sat back and said nothing. But I tried to say nothing in a defiant and borderline proud fashion.

Nelson never looked happier. "I'll admit to being angry," he said. "Which was exactly what my source wanted from me. You know how she likes to piss me off. Anyway, she told me how your 'champion' came to town and got you drunk on bloody meat, and then Mr. Gill admitted—"

"Gilchrist."

"He admitted being from Green Light. Convinced you that you were going to be one rich bastard. Then, wham. You're not the genius in their crosshairs. It's this doppel, this fancy figment of your imagination."

"So you're not so angry anymore," I said.

He broke into a taunting laugh.

I suggested that he shut up.

"You know, this has happened before," Nelson said. "Endowments have been granted to entities that aren't as real as you and me."

"I found twenty-three cases," I said.

"Up late doing research?"

I hadn't slept two hours last night. "Except these other entities were awarded small gifts, microscopic annuities," I explained. "This is different. Green Light wants to launch a new social experiment. Gilchrist explained that the funds are to be used enhancing the skills and intellectual talents of my creation."

"What's your doppel's name?"

"Abalone."

"Yeah, I don't like that name." Another laugh seemed important. When he was finished, Nelson said, "It doesn't take any special brilliance to see what they want here. Green Light is fueled by Green Arrow, which happens to be a biotech firm, which is probably going to be the main supplier for this operation. And wouldn't that be sweet? They help generate a fully conscious, flesh-and-blood, legally sentient entity, and they make a profit at the same time."

Gilchrist had never mentioned that end game. He didn't need to. Since last night, I hadn't stopped thinking about the possibility.

"On the other hand," Nelson began, and paused.

"What hand?"

"Somebody has to be in charge of all that fine money. I'm guessing that's your role. As overseer, an administrator. Think up some noble-sounding title and pay yourself a respectable wage."

"That's what I'm planning to do."

"Did your champion suggest a salary?"

"He did."

"Is it? Fair, I mean."

I shrugged.

Nelson studied me. Sitting in his own tiny apartment, in a gracious northern city with cheap buses and overlapping welfare rolls, he wore a heavy sweater and a smart, vaguely predatory expression. "None of this is 'fair.' Your damned doppel is going to end up being a thousand times richer than you, and with a fresh coat of flesh over those new bones, he'll be better-looking too. Not to mention famous and wealthy and eventually free. A man of consequence, a king striding about a new world, and what happens to the man who made him possible?"

I was tired of this conversation. I considered cutting the channel between us.

But then Nelson said, "I won't tell you what to do, Larry. I can't. But I'd like to remind you that there are laws and that they're pretty clear on this matter. Your doppels belong to you. They are intellectual properties released into synthetic worlds laced with their own hard rules, and whether these entities fly or crash depends on your suggestions and their luck, not to mention both of your innate skills."

"So?"

"So make certain that you and a real attorney read the contract through. Pay attention to your property-right clauses. Pay attention to the codes of this artificial earth. And don't even think about certain possibilities until everything is signed and pretty and very legal."

"Don't think about what?"

One last laugh, and Nelson shrugged. "Really, there's no way you're getting me to say that aloud."

Gilchrist arrived in a rented car. He was thirty seconds early and utterly pleasant, telling me that I had a nice home when I didn't and a lovely old street, which I did. We shook hands for the second time. I invited him into my unlovely house, into my basement. He looked at the La-Z-Boy before settling on the sofa, and I took my normal position before admitting, "I still have doubts."

"You shouldn't," he said. "What's going to happen is historic, and you'll be one of the main elements in this event. Believe me, we didn't pick you by accident. Your doppel is an act of genius, and now that you'll have endless resources to bring to bear . . . well, imagine what kind of successes you can build on top of what you've already done."

I wanted to scream and didn't.

I wanted to read the contracts for the fifth time but couldn't. I had hired three different attorneys, two AIs and an old white-haired man recommended by my Maddy. Flipping the pages before my eyes was important. Feigning deep concentration was essential. And Gilchrist waited, ready to grant me twenty years of internal debate. That's how extraordinarily patient he acted.

I signed where my signature was needed and initialed where initials were mandatory, each one of my marks feeding into a secure depository, and he did the same ceremonial gestures, and I told my bio and his that I was entering this agreement willingly, and that's when everything felt finished. Our business was done, and it wasn't even Saturday night.

"Let me take you to dinner again," he said. "My treat, of course."

"Of course."

Both of us laughed.

"Where would you like to go?" Gilchrist asked.

Maybe a little too quickly, I said, "Back to the same place. I don't know when I'll get a chance for beef again."

He smiled. "I'd happily give you a lift."

I hadn't quite expected that. "No, I really should ride. I'm trying to lose a few pounds, and these feasts aren't helping."

At the ready was a good-humor laugh. We shook hands for the last time, and he asked, "How about seven again?"

It wasn't quite five. "Fine. I'll see you then."

"Very good. I'm looking forward to it, Mr. Voss."

I walked him to the yard, watched him drive away. Maddy was out in her yard, waving at me in a neighborly fashion. I returned the gesture and slipped into the garage—a piece of storage space designed to shelter my nonexistent car. What was waiting in the garage was worth more than all but the very best automobiles. I had to use most of my savings just to rent this equipment, but measured by a different scale, this was well worth the investment.

The machines had already spliced their way into my house. The body suit and helmet were cumbersome until they were awakened, and then my mind was agonizingly slow, leaden. I found myself standing inside the main castle, in the Great Hall. Like a statue, I could do nothing while the doppels and a thousand extras raced past me. And then the augmenters engaged. I was suddenly part of the throng, immersed in the conversation and excitement, everyone waiting for an audience with their king.

My wait proved brief. An alert guard noticed my face and realized what I was, bringing me straight to the front of the line. Great doors opened. The king was where he looked his splendid best, sitting on that very high throne while his happy subjects proclaimed their love and boundless fealty. He saw me at a distance and waved me forward. Every guard and administrator was impressed, and the lovely witch-queen sitting on her smaller throne gave me a very inviting wink. My arrival meant that the most important essence of all was paying them a visit. The only difficulty was when the Erebus hounds took it upon themselves to sniff my hands and crotch, ten different men yanking at the leashes and begging my forgiveness for this unthinkable breach in etiquette.

I waved aside the insult and pressed on.

"It is you," said the king with delight.

"Your Excellence," I replied, not bothering to bow.

He didn't expect a bow or any other token nonsense. Our relationship was set, and nothing would change that. The king of a contrived realm had to surrender his authority to such as me. But he did have enough curiosity to ask, "What brings you here, Sir? As an essence, no less."

"I have news," I said. "Great, unexpected news that involves you."

Intrigued, he pitched forward on the throne. "Yes? Tell me."

"You are mine, and now you are dead," I said, yanking the gun from its hiding place—a neat little tool that did its work in an instant.

I arrived five minutes early for dinner. The restaurateur welcomed me as his personal savior, gave me iced tea and a bowl of beef jerky, and then he hurried into the kitchen, probably to check on his stocks of steak and veal. I drank and ate the salty meat and watched a few minutes of some old documentary. Vaguely familiar faces were talking about those awful days when the Repression began. Except it was a new event for them, and they were part of the history, and I knew most of the facts and nothing else about the events that took place during seven rough months when I was a boy.

I watched the angry faces and listened to pieces of what they said, but mostly I was busy feeling happy. I kept smiling. I kept watching the time. I wasn't even a little worried when it was 7:03 and Gilchrist hadn't arrived. In fact, I was relieved. He

knew what I had done, and of course he wasn't going to sit at my table. No untidy scenes for me tonight. I decided to celebrate on my own account, and my new best friend emerged from the kitchen and took my order and practically skipped on his way back to oversee the robotic chiefs.

Moments later, a figure came from the back of the restaurant. I didn't see him until he sat in front of me.

I said, "Oh," and laughed nervously.

Gilchrist laughed with more confidence. Snapping up a piece of jerky, he put it to his nose and sniffed and flinched at the salty stink, and he held it up to the light before placing back it into the bowl, very quietly saying, "Of course you shot him then. You didn't dare wait."

"I couldn't," I agreed.

"Because he was a political creature, a survivor on a brutal treacherous world, and he would have recognized the situation. The game. How you would have stood to benefit with his abrupt and untimely death."

I kept waiting for that sense of falling, of plunging out of control from some great height. But all that happened was a nagging feeling of discomfort, as if weak hands were trying to suffocate me.

"You went to experts, yes. Which was reasonable. But that king of yours was the one authority that you should have asked for help. He would have offered hard questions, and he might even have sniffed out the duplicities at work."

"Duplicities?"

Gilchrist said nothing.

I said, "Green Arrow."

The young face grinned and blinked before saying, "That organization knows nothing about you. Or for that matter, it knows nothing about me either."

The invisible hands grew stronger, tightening around my neck.

"But on the other hand, I do represent another foundation. Not one with a name or the need for names. But we have a mandate and resources of some considerable reach, and our awards, trust me, are as profound and life-changing as anything that can be done with a few billion dollars."

"Is it Nelson?" I asked.

"You think your old friend might be to blame. Is that it?"

"He had a role in this. Didn't he?"

"And so did I. And so did others. But mostly, this is about you, Mr. Voss. You are the active force here." He leaned back against the stiff old vinyl, saying, "I meant it, Sir. That I was a fan of your promise but thought your gifts were wasted. And sometimes it is best . . . in situations like this . . . to take a comfortable citizen and make him less so. Put him into a place where he cannot depend on inheritances for his next meal or the roof over his head."

"What about my roof?"

"You put your savings into the essence trickery. Except there was a problem. Through some complicated difficulties that I can't begin to describe, your savings never reached the proper accounts. Our banking system is a nightmare, and they have vanished, and you have fallen into deep debt. A debt that will require the selling of your home to make amends. As per the Bankruptcy Act of 2017."

I leaned forward.

The television launched into a documentary about the New Oligarchs and the subsequent resurgence of order in the world.

"I'm ruined," I muttered.

"You're reborn," he countered. "Fresh into the world with nothing but your skin and basic nature."

"What am I supposed to do?"

Gilchrist said nothing, pulling himself out of the booth.

"What? Do you want me to join a political movement now?" I felt almost hopeful, asking, "Am I supposed to run off with you now? Join the cyber-guerrillas or whoever it is?"

He said, "Hardly."

I cursed him.

He said, "This is a gift, sir. A gift. And like any charity, its value relies on whatever the recipient gains in the end."

I cursed him once more.

The youngster grinned and winked, and I suddenly recognized that expression. The witch-queen showed me the same look today.

The door to the kitchen swung open.

As my feast was being carried closer, Gilchrist bent low, and with a quiet conspiratorial whisper said, "You can't afford this meal. But it might be your last. My advice? Eat your fill. Then put this dried beef inside a clean pocket. And when nobody seems to be watching, run. Run, run, run." ○

SAILOR

Softer, sailor, loosen silk-thin filmcloth:
slip away less speedily
on Solar-zephyr-tautened
topsail. Mission to the Oort—
perhaps—but planetoids and cometary orbs
will fill that darkness eons yet to come:
they will await your probing sensors still
for long millennia.

But how long do we have
to gaze upon that billowed square
of glare-reflective, artful,
microns-thin ingenious slip of engineering?
Days, perhaps, or weeks—
moments only, in the panoramic march
of movements in the astronomic clock.
Stay a little that we may gaze
upon such scientific splendor
pushed by ions one way only:
away. Slower, sailor, stay—

As if you could, with curiosity
fulfillingly full-filling tautly
your broad silver sail
that pulls you outward.

Our yearning gravity-embrace
is nothing to you. Go. Forgetfulness
will come—when your transmitted images
of what you seek
arrive to dazzle us
who must be left behind.
—Mark Rich



THE PRIZE BEYOND GOLD

Ian Creasey

“Sliding Down the Asymptote” was the working title for Ian Creasey’s latest story. The author tells us that “the idea came when I watched the Olympics and noticed how often the TV pictures showed the current competitors’ times against the world record for the event. It occurred to me that in future, it should become ever harder to break any record, as all the records approach closer and closer to the boundaries of what’s physically possible. And so I decided to write a story in the traditional SF mode of extrapolating a trend to its limit.”

Three days before the race, when Delroy had finished warming down from a training run, his coach summoned him for a talk. Delroy could tell it was something big. Michito’s job—assisted by his Enhanced empathy—was to become exquisitely sensitive to his athlete’s mood, so as to help get the best out of him. The attunement sometimes became mutual, and Delroy now discerned a rare eagerness in Michito’s almost-natural face.

“The weather forecast for race day has reached certainty,” said Michito. “Temperature: perfect. Humidity: perfect. Wind speed: just below the permissible maximum. Wind direction—”

“Perfect?” said Delroy.

“Behind you all the way.” Michito grinned in delight. “It’s the final star in the constellation. You’re in great shape, the weather will be ideal, we’re two thousand meters above sea level”—Michito made a sweeping gesture, encompassing the many other factors affecting performance—“and it all adds up to one thing.”

“I’m going to win?” Delroy didn’t understand Michito’s glee: the weather would be the same for all the runners.

“Yes, but never mind that. Forget winning—you have a chance at the record!”

Michito paused to let it sink in. Records were something that athletes and coaches normally never discussed, because they’d stood so long that they were effectively unbeatable. The record for the men’s 100 meters had remained at 8.341 seconds for the past seventy years.

A pulse of exhilaration surged through Delroy. His posture stiffened, as if already preparing for the starting gun. “Really? The *world* record?”

“Yes, the one and only. The prize beyond gold.”

Michito’s excitement spilled out, infecting Delroy, whose own excitement blazed in return and stoked a feedback loop. They were practically getting high on it. Indeed, this giddy rush was as close to getting high as Delroy had ever experienced. In his

entire life he'd never once taken any kind of drug. The rules were strict on that, as on so many other things.

Abruptly, Michito reverted to his habitual seriousness. "A chance, I said. A real chance. But only if everything's as smooth as an angel's feather. We need absolute perfection. There can be no deviations, no distractions."

This was standard rhetoric for any important race. Yet Michito's demeanor indicated something beyond the usual rigorous regime.

"I think it would be best if you stayed here at the training ground," Michito went on, "instead of going back to the villa tonight. This is a more controlled environment, with much less risk—"

"What could possibly happen to me?"

"I want to keep you away from other people, and it's easier to do that here. You'll be in purdah, seeing no one except your coaching team. I know it'll be frustrating, but it's only three days."

Delroy grimaced, though he didn't argue. Michito knew what was best. Aside from the usual health and attractiveness tweaks, Michito's main Enhancement was an uncanny empathy that let him predict Delroy's responses, and thus determine the optimum conditions for success. If he felt purdah was necessary, then it must be necessary. It was only another line in the script Delroy had been following all his life.

The script had two phases, as familiar as his two legs. Sometimes, when he rehearsed stride patterns out on the track, the script echoed in his head with every step: left, right; left, right—race, train; race, train. . . .

Michito said, "This is bigger than any medal. The Olympics are like a moon that's always in the sky, waxing every four years; but the record is a comet that blazes just once across the heavens, before disappearing forever. This could be the only time in your career when all the right circumstances combine: the chance might never come again."

"Yet if we can predict this opportunity, then so can other people. Now that the weather's finalized, everyone knows you have a shot at the record. Journalists will be swarming like hornets. It's the biggest sports story of the decade—and it goes beyond sports. . . ."

Michito's voice trailed off, but Delroy knew what he implied. Athletics records could only be set by standard, unenhanced humans—the so-called Ancestral Model. Since in most respects the Standards had long been surpassed by their Enhanced progeny, any new achievement by a Standard human was a major event, embraced by the Natural Life movement as evidence that the old model wasn't entirely obsolete.

"And there's one more thing we need to watch out for," Michito said, pausing to emphasize his next word. "Sabotage. Not everyone will want you to break that record. We can't take the risk of anyone getting to you. I've already arranged extra security here."

Sabotage? It sounded unlikely. Was that a real danger, or just a phantom invoked to persuade Delroy to accept the purdah?

That was the problem with having a coach solely focused on making you perform. You never knew whether anything he said was true, or simply the lie with the maximum calculated motivational value.

Still, the truth didn't matter. Only the record mattered.

The next day, Delroy had his head shaved. It was a routine pre-race procedure. His hair only generated the tiniest fraction of air-resistance drag, but every fraction counted.

It felt like being in prison. No, worse than that. In prison, you were locked up, but you didn't have every hour of your day micromanaged. You could make small choices: eat cabbage or cauliflower; go to the exercise yard or the library. Delroy had no such freedom. The exercises were prescribed, specifying exactly how long to spend on

every gym machine and track sprint. His diet was calculated down to each individual calorie.

He needed to be in impeccable condition to have any hope of surpassing the record. Over the centuries that athletics records had been measured, the times had got lower and lower. The lower the records became, the harder they were to beat, and the less often it happened. The intervals between new records stretched from years to decades to centuries. And the times themselves decreased on an asymptotic curve.

If he'd been allowed to talk to journalists, Delroy would have enjoyed using the word "asymptotic," just to violate people's expectations. People always thought Standards were dumb, because they didn't have augmented intelligence; and people always thought athletes were dumb, because . . . well, Delroy didn't know why athletes were stereotypically stupid, but for some reason no one ever expected them to use a polysyllabic word like "asymptote."

As to what it meant, Delroy couldn't cite a mathematical definition, but he knew its practical effect. The record kept decreasing by smaller amounts, over longer periods, approaching the limit of human attainment: the absolute fastest that anyone could ever run—unaided, of course, by genetic engineering, post-natal resculpting, performance-enhancing substances, or any of the very long list of other techniques that had been banned to maintain the purity of the record books.

If Delroy set a new mark, it might almost be the asymptote itself—or within a thousandth of a second, the precision of the official records. The previous record had stood for seventy years, so Delroy's record should last even longer, a fame persisting his entire lifetime . . . unless he had his body resculpted into one of the post-natal Enhancements that included longevity extensions.

Fame for life, perhaps for eternity.

Contemplating this vision helped reconcile Delroy to the indignities of the training regime. Every aspect, no matter how arduous or annoying, contributed to shaving 0.008 seconds from his personal best: the improvement required to beat the record.

Everything was calculated, down to the last molecule of piss in his bladder. He mustn't carry excess fluid on the day.

After saying goodbye to his hair, Delroy walked into the training-suite annex that housed Dop, his virtual copy. One wall of the room housed a screen projecting an image of Dop, now equally hairless. Since Dop was an atomic-scale emulation, and the screen was smoother than mirrorglass, the onscreen image was even more accurate than looking into a mirror. It showed Delroy at full height, 2.003 meters, and it displayed him naked. The effects of wearing different clothes could be simulated, but the optimum costume and footwear had been refined long ago, so there was usually little point in adding them. His body appeared in its full splendor, with taut muscles under black skin. Delroy knew that his skin color would once have made him subject to prejudice. Nowadays, differences between the Standards were negligible compared to the gulf dividing them from the various Enhanced clades. All colors of Standard suffered equal prejudice from those who derided the defects of the ancestral human form. Still, as the Natural Life movement said, if the Enhanced were really so superior, why were there so many different varieties? They couldn't all be equally wonderful.

Sometimes, in the moments when he wanted something that he couldn't have, Delroy might say to the emulator, "I'd love an ice cream sundae with fudge topping." Then the wallscreen would split into two panels, showing alternate versions of Dop: one who followed the recommended regime, and one who lapsed into indulgence. These simulations were projected forward to race day, and compared. Without fail, the virtuous Dop would be in better shape—perhaps only by an infinitesimal fraction, but it all counted.

This didn't stop Delroy inquiring. After all, you didn't know unless you asked. He

dreamed that one day he might say, "How about growing my hair into an enormous afro?" and the emulator would reply, "We hadn't thought of that, yet we've run the calculations and it turns out that having a giant afro really will help you break the record!"

But after several negative responses, sometimes Delroy would simply stare at the screen and wonder how it felt to be a simulated person inside a computer. As an atom-by-atom emulation, in principle Dop could think and dream equally well as Delroy himself.

In practice, that didn't happen, but only because the law forbade creating a sentient emulation and keeping it prisoner to calculate projections of diets and exercises. Dop's higher brain functions had been suppressed: he didn't think at all.

Delroy found this disturbing. His whole training regime was based on Dop's simulations. That was how it had worked for years: it had won him gold at the last Olympics, and now it would—God willing—give him the world record. Yet the fact that Dop didn't think, that his mental capacities were erased, showed how little the intellect mattered.

Delroy was just a machine following a script, one that needed no thought whatsoever to obey. He only had to train, eat, drink, and run. No brain required.

Maybe athletes really were stupid.

He hated to think that he lived like a programmed automaton. It had almost destroyed his love for racing. In his youth, he'd wanted nothing more than to run, run, run. After he started winning races, he'd trained under a succession of coaches with ever more elaborate and restrictive regimes. As Delroy grew faster, and approached his own personal asymptote, further improvements grew more difficult and required more precise instruction, until finally he became the slave of a brainless emulation.

He'd gone along with it because it worked. You can't argue with results. Yet after Olympic gold and—possibly—a world record, what on earth could come next?

"What next?" he asked Dop, on the big screen.

But the simulations always stopped at the end of the race.

On the day before the big race, Delroy rehearsed his sprints and starts while loudspeakers blared a carefully tailored simulation of cheering spectators, enabling Delroy to accustom himself to the exact pitch of the crowd's roar. Everything proceeded with metronomic precision. It made Delroy feel like a clockwork toy, being wound tighter and tighter. . . .

Michito sensed Delroy's tension, but—unusually—didn't defuse it. Perhaps the tension was necessary: its explosive release would help propel Delroy faster than ever before. After the training session, Michito and his aides hurried back inside to calibrate Delroy's performance against the projections from Dop, and calculate any final tweaks to the diet and sleep regime for the few remaining hours.

Delroy stayed outside to linger in the warm afternoon air and enjoy the view. This would be the last time he saw it. Tomorrow he'd be far too focused on the race to even notice the environment, and afterward he'd go home to Los Angeles—returning as either a record-breaker or merely an Olympic champion still.

Around him lay the magnificent mountains overlooking Mexico City. A thin layer of cloud took the edge off the sun's glare; specks outlined against the clouds might be birds, or might be Enhanced humans soaring across the sky. Wings were one of the most popular enhancements, despite the radical degree of surgery necessary for a post-natal conversion.

As he looked, one of the specks grew bigger. A figure descended, gliding toward the running track. Delroy frowned. Michito's security team would deal with the intruder, so there was no sense in Delroy getting involved. He walked toward the changing

rooms, his muscles tense as he anticipated a confrontation somewhere behind him. He almost broke into a jog, but restrained himself. His exercises had been parameterized to the last stride and drop of sweat; if he ran fifty meters back to the huts, he might infinitesimally overtax himself.

On his bare scalp he felt a draft of air from the beating of wings. The figure was following him. Unless Delroy sprinted, a flyer could easily outpace him anywhere, so he stopped and sat down on one of the lane-marker blocks, waiting for the intruder to land.

The interloper settled neatly onto the asphalt in front of him, and folded her wings. She wore a red woollen tunic; her feet were bare, with brown-skinned human toes rather than the birdlike claws that some of the aerial clades found convenient. Delroy had seen winged humans before, but it always shocked him how small they were. She resembled a six-year-old child with hydrocephaly: the body had to be small, so that wings could support it; but the brain couldn't shrink without losing capacities, so the disproportionate head sat on top of the slender body like a pumpkin on top of a carrot.

Delroy glanced to his right, then his left, wondering what had happened to the promised security patrol. Not that the flyer looked like a threat: she was tiny and appeared to be carrying no weapon. Still, she'd violated the pre-race purdah that Michito deemed essential.

"Your guardians have been detained for a little while," the woman said, in a high-pitched, childlike voice. "Not very long. I only need a few minutes of your time."

"And I only need to prepare without interference," Delroy said forcefully. "If you wanted to talk to me, why didn't you wait until after the race?"

"Because I wanted to be the first. After you break the record, you'll be deluged with offers. It would be difficult for me to reach you, and if I did, I'd just be one voice among many. You'd have no reason to listen to me. But now, I can ask you to give me a chance. If I promise to leave after—say—ten minutes, will you hear me out?"

"I'm not sure I should," said Delroy. "Michito told me to avoid all contact. I haven't even spoken to my family." An image from an old film arose vividly in his mind: sailors blocking up their ears against the siren voices of doom. There was no one here to tie him to the mast. Where had everyone gone?

"Michito is very protective, I know. He's been detained with the others. But he needn't worry. I have no intention of doing anything that'll harm your chances. I want you to break that record, and I'm sure you will."

"All right, all right," said Delroy, not quite reassured, but grateful that she hadn't already shot a bullet into his knee, which she could easily have done if she'd wished him ill. Her audacity deserved acknowledgment. A rebellious part of him welcomed the deviation from the script, the unplanned encounter that might lead anywhere.

"Thanks," she said. "I do appreciate the opportunity. First, let me introduce myself. I'm Yarah Rodriguez"—she paused briefly—"and I see you don't recognize the name, though I was once in a situation very similar to yours. Forty-five years ago, I was part of the team that broke the world record for the women's 400-meter relay. I believe the record still stands." She smiled nostalgically. "We achieved moderate recognition, though not nearly as much as you'll receive. For whatever reason, the men's 100 meters is the iconic track event."

Delroy began to speak, but his visitor overrode him. "I'm not here to complain about some historic quirk that says one distance is more significant, or solo races are more newsworthy than the relay. It doesn't matter why your event is the most prestigious—it just is. That's why your decision is so important."

"My decision?"

"About what you'll do afterward. Perhaps you'll still keep running"—her tone dis-

missed this as unlikely—"which would be one decision. But if you retire, then what next? The world will be watching you, waiting to see what you choose."

"And I take it you wish to make me an offer." Delroy sighed, disappointed at such crass mundanity. "Look, my agent handles all my endorsements. I'm not interested in talking about anything commercial. That's why I have an agent, to deal with all that crap."

"I'm not asking you to advertise gold jewelry," Yarah said waspishly. Delroy stifled a giggle; it felt incongruous to be chided by someone the size of a little girl.

She pointed at Delroy's body, which even when seated still towered over her. "This is a lot more fundamental. Are you going to keep the body you were born with?"

"Ah . . . I see your angle." Delroy paused. It wasn't a subject he'd considered deeply, because it had never seemed urgent. "I guess I'll keep it for a while. I mean, what's the rush? There's plenty of stuff I haven't done in this body, before I start to think about upgrading it."

Drugs, for instance. There were thousands of recreational chemicals, and he'd never sampled any of them. The restrictions were a legacy of the old prohibition laws from the early days of athletics, along with a precautionary paranoia that any exotic substance *might* be performance-enhancing in some obscure way.

Not that he wanted to turn himself into a quivering blob of orgasmium. What lured him wasn't so much the desire for any specific drug, but the prospect of choice: the luxury of having myriad options to explore.

"You'd consider changing your body in future?" asked Yarah.

"Sure, I'd consider it," said Delroy. "Maybe I'll remodel, maybe I won't. But I'm not one of those Natural Life freaks who says that no one should ever be Enhanced."

Yarah smiled. "They'll be disappointed to hear that. After tomorrow, you'll be a hero to them. You know what they'll say: if you can run faster than anyone who ever lived, that proves there's still plenty of potential left in the Ancestral Model. There's no need for intelligence enhancements—there might yet be a Standard who'll surpass Newton and Einstein."

"Yeah. . . ." Delroy didn't like the intelligence enhancements. Their possessors all seemed to be smug, supercilious snobs. "I guess I can live with being a figurehead for a while. Like I said, I'm in no rush to change."

"Neither was I. But the longer you live in your old body, the harder it becomes to adapt to a new one." Yarah's gaze dropped. "It makes a difference, it really does. I wish I hadn't left it so long."

"And so I presume you'd advise me to change straight away," Delroy said, his own voice becoming waspish as he realized what the woman wanted. "You said this wasn't about endorsements. But it is, isn't it? You want me to become Enhanced. And by doing so, I'd endorse the whole concept of enhancement. I'd look like I was rejecting the Ancestral Model. It'd be a kick in the teeth for the Natural Life movement, if their figurehead went straight from breaking a record to taking a new body."

"You said you weren't one of the Natural—"

Ignoring her protests, Delroy went on, "I don't agree with everything they say, but that doesn't mean I want to publicly slap them in the face. I'm not getting caught up in some political squabble between the Standards and the Enhanced—"

He broke off, gripped by a dark suspicion. Michito was Enhanced. The security team would all have various enhancements. Rather than being overpowered, had they deliberately let this woman arrive, in the hope that she would persuade him to their cause?

Rage overtook him. Those damned Enhanced—they were all in league together; they thought they were so superior. . . .

The anger dissipated as Delroy struggled to control himself. His years of regimented

living meant that he saw his coach's hand in everything. Yet rationally, he knew it was preposterous to accuse Michito. Why would Michito set up the purdah, then have it interrupted by a stranger? It didn't make sense. After the success of their long athlete-coach relationship, Delroy would trust Michito himself far more than any stranger.

And Michito's mental enhancements were completely different from Yarah's physical ones. The Natural Life movement talked of the Enhanced as a collective mass, scheming together with sinister intent. Yet in reality the Enhanced were a vast array of divergent body-types and mind-types, with little reason to cooperate.

"This isn't about the Standards against the Enhanced," said Yarah. "If it were, we'd want to prevent you breaking the record. But it isn't, it really isn't."

"Then what is it about?" demanded Delroy. As soon as he spoke, he regretted the harshness in his voice.

"It's just that if you do decide you want a new body, you'll have to choose which particular set of enhancements—"

"Oh, I see," Delroy said, in a calmer, more cynical tone. "And naturally, you have a recommendation—"

"Yes. On behalf of my clade, I'm authorized to make you an offer. If you join us, we'll pay for the resculpting procedures, and assign you a mentor, and show you all the joys of flying. . . ."

"Getting wings is expensive, isn't it?" It wasn't only the cost of the wings themselves; the rest of the body had to be adapted and pared down. Delroy stared at the pixie-like woman, who was surely less than a quarter of his own weight.

"Yes, but having a mentor is the most important thing. Flying isn't easy; people have no instinct for it."

"And am I correct in assuming . . . ?"

"I could be your mentor, if you wish," Yarah said, again looking down at the asphalt rather than meeting Delroy's gaze. "Obviously I was chosen to approach you because my background is similar to yours. I know what it's like, because I went through it myself. It's hard. Don't let anyone tell you it isn't. It's especially hard for athletes, because we're so attuned to our bodies. When we run or jump or hurdle, we're accustomed to precise control and high achievement. . . . Then you wake up in a different body, and you find you've lost that harmony, that mastery. It's like being crippled—"

"You're really selling it to me," Delroy commented with a smile, yet admiring Yarah's honesty.

"—and you struggle for a long, long time. But eventually it clicks, and then you're in a whole new realm. Flying is so perfect, so magical. . . ." Yarah's expression had a fervent joy. "We have races, you know. London to Paris is the classic, but there's lots of others. And racing in the air is much more challenging than on land. Let's face it, running requires only a limited amount of thought. Flying is far more subtle: there are more things to weigh up—winds and thermals and weather fronts—and more choices to make. Once you've raced across the sky, you'll be hooked."

It sounded seductive. As a sales pitch, it was intended to be seductive. But Delroy knew the drawbacks that Yarah hadn't mentioned. He knew them very well, because they were precisely the factors that made Standard athletics such a popular spectacle, the Olympics such a major event, and breaking a world record so difficult and prestigious.

Restrictions—all the constraints that Delroy found so irritating—were what made the whole thing work. A race was only meaningful between fairly matched competitors. Thus the rules of all Standard sports forbade the use of body resculpting, exotic substances, and the like.

Once you allowed enhancement, an equal contest became impossible. The enhancement process itself was constantly being refined; the latest generations of fly-

ers were far more graceful in the air than the earliest crude efforts. And no two individuals were the same, particularly when remodelling wasn't a once-only makeover, but a lifelong process of continual tinkering. The various Enhanced clades were social communities as much as physical templates, based on broad distinctions among a vast spectrum of constantly shifting body-types.

Delroy had seen pictures of the last London to Paris winner. She was a tiny scrap of a thing, unrecognizable as human: just a sliver of brain in an airborne arrow. The human form wasn't meant to fly, and consequently the further you optimized for flight, the further you moved from the Ancestral Model. Yarah, as disconcertingly small and grotesque as she looked, had—so far—taken only a few steps down a long, long road. . . .

Sure, you could define broad categories of shape and size, just as Standard boxers were divided into weight classes. But with such a huge range of variation to classify, either a few categories all contained significant divergence, or a large number of categories had only a tiny population in each.

Neither outcome was satisfactory. Consequently, Enhanced sports lacked a mass audience. All famous sportsmen—not just athletes, but the stars of football, tennis, golf, and so on—were Standards.

Delroy didn't bother saying any of this to Yarah. There was no point in reiterating what they both understood. Instead he said, "It's a generous offer. And you've gone to a lot of trouble to come here and make it. Why? What's in it for you?"

"We need your prestige," said Yarah. "When you break the record tomorrow, you'll be famous. If you subsequently choose Enhancement, you'll join a clade, and they'll become famous, too. You talked about endorsements—I don't like the word, but that's effectively what it is. If you join our clade, then you're endorsing us.

"You know how the Enhanced are divided: lots of body-types, lots of turnover. It's unsustainable. This is an experimental phase—every permutation of body and mind is out there somewhere. But it can't last. People will find that some variations are better than others, and they'll want to live in communities of the like-minded and like-bodied. Over time, the top few clades will expand their population . . . and a lot of unpopular clades will find their members drifting away to join the successful ones. We want to be among the winners, not the losers." Behind Yarah's composed expression and polished words, Delroy thought he glimpsed a hint of urgency, perhaps even anxiety.

"And so we have a recruitment plan," Yarah continued, "based on persuading the right kind of people to join us: leaders, achievers, role models. You're one of them."

"You mean I will be, if I break the record tomorrow," said Delroy.

Yarah smiled. "Don't worry about that. I was a record-breaker myself, remember. I can see when the conditions are right, when everything is coming together. It'll happen, for sure."

"I appreciate your confidence," Delroy said, trying not to sound sardonic. He assumed that predicting success was Yarah's polite way of signaling that her clade only wanted him if he broke the record. Failure wouldn't make a good figurehead.

Did he want to graft wings onto his back and soar through the air? It sounded pleasant enough, although many other things might be just as desirable. If he succeeded tomorrow, he'd receive plenty of offers. The prospect intoxicated him. It was flattering to be courted, but even more delicious to contemplate an endless vista of choice.

Yet the accomplishment of winning a race—and setting a record—depended upon the extensive rules defining a true contest, and the arduous training that achieved results. Without such structure, would he merely waver between a thousand kinds of empty hedonism and trivial goals? In a search for meaningful accomplishment, would he end up seeking a Michito-like flight coach to teach him aerial racing, and find himself reverting to a rigidly scripted life?

That would be one choice. Surely there were others.

Delroy stood up, sending a signal of his own: that the conversation was over. "I'll consider your proposal later. I'm sure you understand that right now I'm focused on the race."

"Yes, of course," said Yarah. "I hope you do decide to join us. And here's a quick sample lesson: take-off is a lot harder than landing. You need to work up some speed." She looked at the starting blocks in front of the lane markers. "Guess I'll use these, for old times' sake."

She knelt and assumed the "set" position, her tiny feet looking incongruous in the Standard-size blocks. Delroy raised his hand, miming a gun. He shouted, "Bang!"

Yarah burst out of the blocks and started running down the straight. Her wings unfolded. They began to beat in a slow rhythm, one flap to every four strides.

As she crossed the finishing line, Yarah left the ground and ascended into the sky.

On the morning of the race, Delroy realized that he had never previously known what freedom meant. He'd resented his tightly controlled training sessions, his rigorously specified diet, his calibration against a brain-dead electronic emulation. But he'd never appreciated just how much leeway he'd had on a minute-by-minute basis. Now, even that tiny degree of freedom vanished. The schedule became all-encompassing, turning him into a giant marionette without the slightest volition.

Dop had become a hologram, following him around. It was the most efficient way to convey instructions even more meticulously detailed than last year's drill before the Olympic final. Delroy scrutinized Dop's image and copied every single action: every bite of food, every warm-up exercise, every little arrangement and adjustment.

Michito, normally so sensitive to his athlete's mood, seemed not to notice Delroy's discontent. Perhaps the coach was simply too busy trying to control the real world with the atomic level of precision achieved in the simulator. More likely, he expected Delroy's reaction and allowed for it. Only the record mattered, not whether the athlete enjoyed the pre-race preparation.

With his bodily movements enslaved to the script, Delroy's only freedom lay inside his head, where rebellion brewed. As he walked into the stadium and heard the familiar expectant buzz from the crowd, he found himself wondering whether to hold back, to refrain from the uttermost paroxysms of effort required to beat the record.

It would be a splendid gesture to deliberately throw away everything he'd striven toward during his career. It would assert his freedom, his individuality, and show that he couldn't be reduced to a mindless marionette.

Delroy lined up with the other runners, and shook their hands without looking into anyone's eyes. He wasn't racing against his peers; he was racing against the mark set seventy years ago. As predicted, the weather was perfect: wind, temperature, humidity. All conditions were propitious. Delroy crossed himself and said a short prayer.

On command, everyone set themselves in the starting blocks. The race official pointed his starting pistol at the sky. As always—it formed a key part of his preparatory routine—Delroy remembered the words of a long-dead sprinter: "You start on the B of the bang." The phrase acted like a mantra, priming him to react to the very first decibel of the gun's noise.

But should he make the effort, or should he hold back?

Delroy yearned to escape the strictures that had bound him for so long. And he would have the maximum scope, the widest variety of tempting choices, if he became a world-record holder.

That was the end of his conscious thoughts. As soon as the starting pistol fired, he became the automated puppet for the last time, obeying the final few words of the script as he raced toward the freedom of the finishing line. ○

Carol Emshwiller spins a moving SF tale about four resilient children and their mysterious . . .

UNCLE E

Carol Emshwiller

I say, "We'll all go on just as usual. We'll shut the door of the bedroom and do as we've always done. Just don't tell anybody. If you tell, they'll take you away and we'll be separated to different places and won't have the house anymore. Don't worry, I'll take care of you. I can make pancakes. We can warm up TV dinners. We can order out. You guys like pizza. We can have it whenever we want. We don't need to be scared because Ralphie will guard us."

They all look scared even so.

Howard says, "But, Sarah, you're only twelve."

"I'll be thirteen next month."

"I don't like it."

"Do you think I do?"

He says, "But we have to have rules."

"I've got rules."

"Like what?"

"Well, first, don't answer the phone. I'll do it. I know what to say. After all, Mom was sick for a long time and everybody knows that. Nobody will wonder why she doesn't come to the phone.

They're in a row on the couch in front of me and they all look just as scared as ever. Even Elliott looks scared. I guess because we do.

Maggie says, "What if a robber comes?"

"That's what Ralphie is for."

"What if Elliott plays with matches?"

"Oh for heaven's sake, we'll be watching him. Same as we do now."

They still look scared, but I am, too.

"What about the piano?"

"Well, what about it?"

"Who's going to make us practice?"

I don't bother answering. On purpose I sigh a big sigh. It's a real one, though. That's exactly how I feel.

I know where Mom keeps her stash of money and Howard and I both know how to get money with Mom's ATM cards. Her secret code is all our initials in birth order. I can't let Howard do it. He looks too young.

To make everybody happy, I order out for pizza.

I don't tell anybody they have to finish their milk, but they do it anyway. It's the pizza they don't finish. Nobody is in a mood to eat.

After supper, we move our mattresses down to the living room and line them up in a row so we can all be scared together.

We have a hard time getting to sleep—except for Elliott.

Maggie says, "Mom read to us."

Howard says, "How about TV?"

Maggie says, "We're not supposed to."

So I say I'll read. They curl up on my mattress and I pick something not at all scary and with a happy ending.

But then, just when I get everybody back in their own beds and to sleep, Elliott wakes up with one of his screams. Which is exactly what we all want to do ourselves so we shouldn't be mad at him but we are.

Mom said Elliott was too little for night terrors, but he has them anyway.

After that nobody can get back to sleep.

Except Elliott.

I read to them again and that helps.

Next day I figure out a budget. I think we'll get along a lot better than Mom did. In fact I'm sure of it. We don't buy so many things. We don't even want all those things she got.

I try to balance the checkbook. Howard helps. He's really good at math. Thing is, Mom didn't do a good job of it. She was almost a whole thousand dollars off. I don't think she cared. She just left it all wrong. Howard fixed it.

It's summer and there's no school. Howard is disappointed, he always likes it, but Maggie is glad and so am I. I have a lot of work to do and I don't know how I'll cope when school starts again—except we'll get lunch.

For now, we get along just fine. In fact, better than ever. We practice the piano. (I can help some, but not like Mom did.) We drink our milk. We make our beds. Only bad thing is that Elliott screams every night. We're getting used to it, though, and mostly we get back to sleep right after. We have Elliott sleep with me and that helps a little. He always did like coming to me even better than going to Mom. She never liked that sloppy goodnight kiss of his, but I kind of do.

We're eating lots of pizza. Nobody likes vegetables, so we don't have those. We have lots of fruit, though. I hope that makes up for no vegetables. The house is beginning to smell funny but Howard put the hall rug up against the bottom of Mom's door.

But then along comes this great big, balding man. Walks right up to the door with two grocery bags.

We can't say he isn't dressed right, but maybe a crook would dress this way to fool us. He's wearing a good jacket and white shirt and tie. All the more reason to be suspicious. Besides, Ralphie goes absolutely crazy and he hardly ever does. If the door would open any farther he'd have been out and attacking but I had put the chain on and opened the door just a crack.

First thing the man says is, "I'm your uncle."

Another clever trick.

"Uncle who? What's your name?"

I notice he hesitates as if he doesn't know his own name. Then he says, "Oh . . . um . . . Well, just call me Uncle E."

Howard says, "How come suddenly we have an uncle?" And I say, "We're not going to call you anything."

I must admit, there's something familiar about him. Is he kind of like Dad? I don't think so. But we won't let him in, no matter what.

He says, "Here, at least take this milk."

Howard says, "It might be poison."

I say, "What makes you think we don't have enough milk, because we do?"

The man says, "You know, things will get worse."

Things are so fine, I wonder what makes him think that.

He says, "And you have to get rid of . . . your mother."

We slam the door on him and then look out the window. He sits on the steps for a while. Finally he puts the two grocery bags near the door and leaves.

When we're pretty sure he's *really* gone, we go out and get them (we don't want them sitting out there), but we throw all the stuff away because of it probably being poisoned.

Howard says, "That was a tricky way to try to get in but we're too smart for him."

We have two TV sets to steal but nothing much else. One is up in Mom's room. I wonder if that man would try to climb in her window. And how come he knew about her? Can you smell it all the way down here?

Maggie was practicing the piano all the time he was at the door and he seemed to be trying to talk to us and listen to her at the same time. He kept lifting his head and staring off into nowhere. She's not that good, but he smiled this funny little smile as though he really liked hearing her.

That night Elliott has the worst night terror I've ever heard him have. And he wouldn't go back to sleep. I walked him up and down for almost an hour. I started to think I was a little young to have to be looking after a toddler. Good thing there isn't any school yet.

The man comes again the very next day with a pizza, but we'd just had one so we weren't even tempted. We knew who it was before he knocked because Ralphie went crazy again. I had plenty of time to put the chain on without even looking out the window.

He had a bag of fruit, too, but Mom said people put razor blades in fruit sometimes so we weren't fooled by that.

Odd, though, he called me by my name.

That's when we slammed the door.

He's very clever.

Just like last time, Ralphie runs around in circles afterward. He doesn't calm down for ten minutes.

For a while we watch out for the man every time we go anywhere.

I make myself a cake for my birthday and I get some balloons. I don't get myself a present though. I'm a little worried because the bank account is going down fast even though we're careful. Howard gets me a little pen and pencil set. I don't know how he got it and I don't ask. Maggie makes me a card and I put it on the refrigerator just like Mom would have done.

Pretty soon school starts and now the problem is Elliott. There's no way that I can go. Also there seems to be some sort of problem with the bank. All of a sudden our ATM cards don't work anymore. There's a CD, but we don't know how to get into it. We cut down on ordering out and TV dinners. It's cheaper for me to cook from scratch. I'm so worried, I completely forget Elliott's third birthday. Thank goodness he doesn't care and the others don't notice. I wonder if Elliott is talking as well as he should be doing but there's no way I'm going to take him to the doctor.

Things get worse and worse. I taste Ralphie's dog food. It's not as bad as you'd think, and Elliott has been chewing dog biscuits whenever he managed to sneak one, anyway.

Then I have a really good idea. After Maggie and Howard go off to school . . . with their lunch money . . . that's our last, I get Elliott and take off for a completely different neighborhood. I have us both wear old clothes. I find a good corner near a bunch of stores and start to beg. I actually do get quite a bit of money. I make sure I get home before Maggie does in early afternoon, and even so I have thirty-two dollars and sixty cents.

Elliott behaves himself because I brought cookies. He even takes a nice long nap right there on the sidewalk.

I don't tell the others. Now I'm glad Elliott doesn't talk.

I decide to have pizza that night. We haven't had any for a long time. Mostly I've been cooking potatoes and oatmeal. Apples are expensive but sometimes strawberries are on sale. I wonder if a person can eat too many hot dogs. The kids do seem kind of thin. Elliott especially. He looks pale and always has dark circles around his eyes.

I'm thinking of going into Mom's room and getting that little TV set and seeing if I can sell it. There's a once a week flea market not so far away . . . well, actually pretty far, but I can use the wagon. Not that I want to go into Mom's room.

So I do it anyway. I put Elliott in his playpen and put a scarf around my nose. I'm thinking, thank goodness I covered her with the sheet before I shut the door. I bring the wagon upstairs. That TV set is heavy even though it's little. While there I get one of Mother's bras (I'll put Kleenex or cotton in it), two of her dresses, and a pair of her medium high heels. I've been trying to look older and these will help a lot.

When he sees that little TV set, Howard says he heard at school that there was a robber in our neighborhood doing exactly that, stealing TV sets. I tell him by Saturday it'll be gone. Besides, we have Ralphy.

I have that little TV set all ready to go in the living room right next to the big one. (Not that the big one is that big.) If I can sell the little one, I'll go sell the big one next.

But wouldn't you know . . . that's when a robber comes . . . in the living room window. He makes quite a bit of noise trying to open it. Then just breaks it with a crash. Not a very smart robber.

Right at the beginning, before he breaks the window, I creep over and wake Howard, then Maggie. But this is odd, Ralphy keeps quiet and cowers under the couch.

The robber has a flashlight. He doesn't shine it on us, thank goodness, he shines it on the TV sets and there they are practically ready to be hauled away. He goes over and lifts the big one on to the wagon beside the little one. From his silhouette in his flashlight he looks like a skinny kid, maybe not much older than I am.

It's not that we aren't ready. After all, we've been scared of just about everything this whole time. We get . . . all at the same time . . . a stone, a baseball bat, and the iron frying pan. . . . And the robber's not ready at all.

Afterward we drag him (good that he's skinny) upstairs and put him in with Mother and then we tape cardboard over the broken window. Finally we coax Ralphy to come out from under the couch. Odd, how he went crazy for half an hour when that man came to the door and then hid when the robber came.

Thank goodness Elliott slept through the whole thing and didn't scream till way after it was over.

Now that both TV sets are in the wagon, that next Saturday we all go off and sell them at the flea market, me dressed up just like Mother. (Elliott looks at me confused the whole time.)

Anyway, now we have plenty of money for a while.

And then we don't again. I think Howard is stealing food for us, but I don't ask. They get the school lunches, I still have money for that because I'm going out begging again. Trouble is, Elliott is getting harder and harder to keep in one place and, all of a sudden, he won't take a nap. I always dress as Mother now when I go out and I keep changing the places where we go. The two others still don't know I do that. Now that Elliott is so wiggly, I hardly make twenty dollars a time. I wonder if there's a way to sell the piano. Except we don't want anybody coming in here to pick it up. It

would be too bad, not having it, because ever since Mom died, Maggie has been practicing like crazy even though she hates to. I was the one who wanted to be a musician like Mom, but I haven't had time to do any practicing at all. I've given all that up.

Then, on top of everything else, Elliott and I get the flu at the same time. (Then I'm *sure* Howard is stealing food.) And just after we get better, Maggie gets sick. Nobody feels like cleaning so the house is a mess. It smells bad for *lots* of reasons now. I haven't done the laundry for a long time, and, on top of all this, the toilet backs up.

It's Saturday, everybody is home . . . suddenly, Ralphy goes crazy again. There's nobody at the door at all, but he's twirling in circles, squeaking and whining. When the knock does come, maybe a whole twenty minutes later, he starts to bark. And then, for heaven's sake, Elliott says his first word. "Him," he says. At least that's what it sounds like, and then he says it three more times, clear as could be. (Don't they say Einstein didn't talk till he was three?) Ralphy and Elliott are the only ones who seem to know what's going on, and Elliott is turning in circles and making the same squeaky noises as Ralphy did.

We look out the window and, of course, it's that same big, well dressed, balding man, again with two bags of groceries. You can see apples and oranges sticking out the top of one, and we're even glad to see the broccoli sticking out the top of the other. Still, I set the chain. Except this time, by mistake, I open the door far enough for Ralphy to get out. I think he's going to attack the man, but he jumps up and the man kneels down and Ralphy licks his face and whines with so much joy he can't contain himself.

So we open the door all the way and right away Elliott holds up his arms to be held and the man picks him up and Elliott starts to laugh and I realize I haven't seen him laugh for a long, long time. Or any of us for that matter. And as I see the two of them, in each other's arms, I think, maybe we do have an uncle. Exact same smile . . . While Elliott is laughing, the man is, too, except he's crying at the same time, and tries to hide his face, down and in close to Elliott's.

The rest of us are scared but, in a funny way, relieved, too. Here's food and here's a grown-up.

Howard, before we know anything about anything, grabs one of those apples and starts eating, before it gets away, razor blades or not.

Uncle E takes off his tie and jacket and rolls back his sleeves. First thing he does is fix the toilet. And then gets the laundry started. Then he cooks us a big supper.

He calls Howard, "Little Bro."

At table he does magic tricks. Pulls quarters out of our ears and gives them to us. He even makes some of the vegetables disappear, and then he makes it so one of our glasses looks like it goes right through the table and comes out underneath. I wasn't fooled. I guessed how he did it.

Uncle E seems fascinated by all of us, but especially with Elliott.

After supper he asks me to play the piano for him, but I won't because I'm much too out of practice, so Maggie plays for him instead. Then he sits beside her and plays the same things along with her. Even though he's a grown-up, he doesn't play any better than she does.

He puts us to bed and then goes upstairs. I get up and go to the bottom of the stairs. I think to go up, too—I still feel I'm pretty much in charge and responsible—but he turns around and says, "I'll take care of Mom."

(Mom, he says.)

Then he goes into her room and I hear him lock the door.

But right after I hear him unlock it. He comes out and stares down at me. "What is this? Who?"

I say, "The robber."

Uncle E sits down on the top step and sighs a big sigh pretty much exactly like the one I've been sighing all the time these last couple of months.

I tell him all about it. He still looks upset, so I say, "And now he's not going to rob other people." I really do think it's a good thing. We all said that when it happened. "Isn't that so? Besides, he broke the window."

Uncle E doesn't look as if he agrees at all. He shakes his head as if no, no, no, and no, but he goes back into Mom's room and locks the door again and I go back to bed.

I don't know where Uncle E sleeps. Or if he does at all. I hope not in there.

That night Elliott doesn't scream.

Sunday morning Uncle E wakes us when breakfast is all ready. Waffles, eggs, bacon. He brings it on a tray to the living room where our mattresses are on the floor. He sits down with us and Elliott climbs all over him.

After breakfast Uncle E and Maggie play the piano a bit. It badly needs tuning.

Later, he tells Howard, calling him Little Bro again, "You know there's an old guitar up in the attic. You ought to see if you can find it."

"How do *you* know?"

"There's always an old guitar in everybody's attic."

Monday, after another good breakfast and after Howard and Maggie go off to school, Uncle E goes down to the phone on the corner (ours has been turned off) to hire a woman to look after us. I tell him I can do the work myself . . . that I want to, but he tells me, "You have to go to school. You want to be a musician like Mom was, don't you? Didn't you used to practice all the time? It can't just be Maggie who gets to . . . I mean . . ."

"Maggie! She hates to practice. She only does it now because she knows Mom wanted her to."

"But *you* . . . *you* have to, too. You *have* to. Promise me you will."

I say, "Maybe."

"I'll see to a piano tuner if you promise."

Uncle E puts Elliott on his shoulders and we have a long walk all around town and we have hamburgers and ice cream. Uncle E. smiles at everything like he really loves this town. He says, "It sure has changed."

I say, "From what?" but he doesn't answer.

Tuesday Mrs. Mumson comes first thing and I'm to start off for school with Uncle E so he can make sure they get me back in properly.

After we get me all set, and before I go off to my first class, he hugs me really hard. "I have to leave now," he says. "I'd like to stay longer, but I have to go back. Mrs. Mumson will take care of you. You know you're doing her a favor, letting her help out. She needs the job. Go get that guitar and she'll show you what she can do."

I start to cry. "Don't go. Don't leave yet. *Please*."

"There are things back there that need taking care of. Two things in particular. *You* know. *You* know it all."

"Come again then. Pleeeeease."

"It's not as easy as you think. Besides, no need."

He gives me a big sloppy kiss on my cheek. I have to wipe that off along with my tears before I can go to class. Now where . . . oh where, oh where, do I get that exact same kiss? And every single night?

And I do know what it's all about, but I'm not ever going to say. I wonder how he did it.

So . . . Wow! Elliott will turn out *just great!* Better than I ever would have thought. I was worried about him. . . . Now I'm happy even though I'm sad. And Maggie will play the piano and I . . . I will, too, I guess. Not so odd, since I'm the only one around here who really, really likes to practice.

Little bro! For Heaven's sake!

And I'll bet that sloppy kiss was *another* of his jokes.

I have to stop laughing before I can go in to class. ○

BLUEPRINT FOR A DOMED CITY

From outside
you can hardly see the city at all:
just a drop of glass
blocking off the horizon.

Of course, there is no outside.

Inside, buildings stand tall,
shining with safety;
the streets are free from wind and rain,
the sky glimmers.
The dome itself was built on a clear day,
as regulations suggested.
They erected scaffolding,
created security
out of molecules and atoms.

There is no forever in the city.
The ends of space are clear from inside.
And the ends of time as well.

When lovers fight
there is nowhere for them to go.
Likewise families,
friends. This city keeps
all its citizens.

—Jessica Taylor



WARFRIENDS

Tom Purdom

"Warfriends" is the long-awaited sequel to *The Tree Lord of Imeten*, an Ace Double Tom wrote over forty years ago. He liked the planet and its people, and he always thought "a more energetic writer might have turned it into a series." We are fortunate that recently he found himself thinking "Why not a novelette or two?" Readers who would like to learn more about the original tale—along with revelations about marriage, cats, SF readers, and the Ace Double publishing saga—can browse the literary memoir the author is publishing on his website, www.philart.net/tompurdom.

"He has decided to attack the patrol," Jila-Jen said. "Tonight. In the dark. You and your warband will scout. And carry me and two others."

Vigdal's tail started to stiffen. He stifled the impulse and held it curled against his body.

"They will know we're in the area if we do that," Vigdal said. "They'll be alerted. We'll face an alerted force when we attack the road."

Vigdal had deliberately arranged himself in a sitting position, with his hindquarters tucked under him and his weight resting on his forepaws—the most relaxed, unthreatening posture a member of his species could assume. Jila-Jen had tried to reciprocate, and he had done about as well as his species could. Jila-Jen was bending forward, with the weight of his upper body resting on the knuckles of his left hand, and he had let himself lean to one side, so he would look almost languid.

No Warrior of Imeten could ever eliminate the threat inherent in his presence, of course. Vigdal could still feel the tensions and conflicts that permeated every conversation he conducted with Jila-Jen's species. They both knew the dartblower hooked to the back of Jila-Jen's harness could be whipped into action in seconds. The iron sword at Jila-Jen's waist could be unhooked and swung against an enemy's neck in a single, sweeping motion.

The tree people always looked awkward on the ground. In the trees, Jila-Jen could flow across the branches on all fours and sail from handhold to handhold. He could hold himself steady with one hand and manipulate a weapon with the other. On the ground, without his weapons, he would be a prey animal—a clumsy creature who scuttled around on his knuckles and hind legs, without the natural grace of a fourlegs.

But everything had changed in that legendary age when fate had taught the tree people their hands could be used to fashion things that had never existed. . . .

"We are supposed to kill the enemy and make them guard their land and their wealth," Jila-Jen said. "Nama-Nanat says we can do that by attacking their patrol. We will kill every Drovil in the patrol. And attack the iron road if we can."

Vigdal was holding his big round head slightly bowed, as if he was pondering every word he heard. The tree people didn't like it when you looked them in the eye without a break. "And what if we don't kill all of them?" Vigdal said. "What if some of them escape and get to the road before us? And we can't attack the road because the Drovils have been alerted? Are we supposed to give up the chance to steal iron and free captives just so we can ambush a patrol?"

Jila-Jen straightened up. The fur on the side of his head stiffened into bristles that turned his face into a broad angry mask. His free hand gripped the hilt of his sword.

"Nama-Nanat has given his orders!" Jila-Jen screamed. *"Nama-Nanat is your commander. He commands! We obey!"*

Harold the Human had placed Nama-Nanat in command. Harold had met with the five Master Harmonizers selected by the itiji and they had all agreed it was the best course. This would be the first time a war party of the tree people and a warband of the itiji would fight under a single leader.

The Five Masters had engaged in the usual chatter. Their orange eyes had flashed and fluttered. Their heads had bobbed like windblown flowers as they vented their dissatisfaction. And in the end, after all their talk, they had come to the same conclusion they would have reached if they had never said a word. The Warriors of Imeten would only respond to orders and they would not accept orders from an itiji. That day had not come.

Harold was younger than the Five. He obviously lacked certain kinds of wisdom. But he was the being the Warriors of Imeten would listen to. He was the being they had to listen to.

"The Imetens have accepted the will of the Goddess," Harold said. "Most of them truly believe they must accept you as equals because I defeated their champion. Many of them realize you've made them stronger. Some of them even realize you understand strategy better than they do. But I can tell you many of them resent it, too. And some of them feel confused. They've been taught all their lives that you're supposed to be their slaves. And now they're being told their Goddess has changed her mind. Some of them are even claiming there was something wrong with my fight—that it didn't truly tell them the will of the Goddess. We have to move carefully. We can't make too many demands on their emotions."

Harold had spoken in his own language. He was still learning one of the simpler languages of the itiji. The itiji who worked with him had found it was easier to just add his language to their repertoire.

Vigdal had attended the council because the Five Masters had already agreed he would be the designated harmonizer of a warband that would contain eight warfriends. He had maintained the Ordeal of Silence—an act of self-repression that could feel just as painful, in its way, as the restraint of the mating urge—and stretched across a bed of blue and yellow shade flowers while they reviewed, once again, the strategy the Five had recommended to Harold.

The Warriors had accepted the itiji as their equals and, in return, the itiji were supposed to help them stand against the armies of Lidris of Drovil, the ambitious conqueror who had subdued four of the smaller cities the tree people had erected along this section of the Great River. Lidris coveted the iron mine possessed by the Warriors of Imeten because his own source of iron was located a full four day march from Drovil.

Every successful raid on that long, vulnerable road would reduce the Drovils' supply of iron and free the itiji slaves who dragged the Drovils' ore sleds. But the raids didn't have to succeed. They were winning a victory if they merely forced Lidris to patrol that vast expanse of forest.

The member of the Five who liked to “chase down the numbers” had summarized the overall strategy. “Every Drovil who is forced to guard the road is one less Drovil who can attack Imeten. We don’t have to take major risks. We can produce a major effect with a minor effort.”

So what could Vigdal say? His own people had worked out the strategy. Jila-Jen was right. They didn’t have to attack the iron road. An attack on a patrol would have the same effect on Lidris’ army.

Did it matter that no itiji would be freed from toil? Should he start an argument merely because two of his closest friends had been captured by the Drovils and were now hanging in nets, dying from starvation at a pace determined by their tormentors?

“You don’t have to scream at me,” Vigdal said. “We will do what Nama-Nanat decides. But I know how my warband feels. I know how I feel. We all started this march seeing the faces of the people we would free. The suffering of our mindkin nags us like a thorn that pricks every move we make.”

Jila-Jen’s fur relaxed. He had been assigned to communicate with Vigdal precisely because he had some capacity to work with others without basing the entire process on punishments and rewards. By the standards of the tree people, he was an individual with a remarkable ability to share the feelings that motivated other minds.

“Nama-Nanat hasn’t abandoned the attack on the iron road,” Jila-Jen said. “We may still attack the iron road if the attack on the patrol goes well.”

Jila-Jen’s face hair fluttered. “But the attack on the patrol must receive your best support. We must destroy them.”

“And what of the two prisoners dying in the nets?”

“I have told Nama-Nanat that is important to you. He knows he must keep it in mind when he makes his decisions.”

The night was never quiet. In addition to the chatter and movement of all the creatures that flew through the trees and prowled the darkness, they could hear the sounds that formed a constant background to every itiji’s thoughts: the songs the itiji sang as they went about their rounds. Small itiji huntbands still ventured into this region, in spite of the danger they would be captured by the Drovils.

Vigdal’s warband fanned out at the front of the advance. Behind them, most of Nama-Nanat’s Double Eight flowed through the trees. Three Warriors rode on cargo frames carried by pairs of itiji, as Nama-Nanat had ordered.

Jila-Jen rode on the frame Vigdal carried with one of the younger—and stronger—itiji in the warband. Vigdal could have avoided the labor, given his position, but that would have weakened his influence. He had agreed to carry the three Warriors, but he didn’t believe it was necessary. Jila-Jen could have maintained contact from the lower branches of the trees.

The two captives who were hanging in nets near the iron road were conserving their strength, but they raised their voices when the need became unbearable and the itiji huntbands roaming the forest passed their messages through the night. The captives were trying to last as long as they could but they were obviously resigned to death. Mostly they sang their names and the names of their relatives and mindkin, living and dead.

Remember us, they sang as they finished each branch of the name tree. Remember us.

And now and then, faint and far ahead, Vigdal’s sensitive ears could detect something that was almost as disturbing—an itiji singing in a language no member of his

species had ever developed. The Drovils had invented a code and forced their captives to relay messages for them.

Jila-Jen maintained a disciplined silence while he was being carried, but he started talking the moment Nama-Nanat ordered a rest stop. Jila-Jen had never admitted he no longer believed in the Goddess who supposedly ruled Imeten, but Vigdal had concluded Jila-Jen's worldview had been shattered by the coming of the humans. He was obviously fascinated by Vigdal's casual attitude toward the gods.

"We have a northern thinker called Kladen ev Grada," Vigdal had told Jila-Jen. "He said the gods have their world and we have ours. They have their affairs, we have ours."

"But how do you know how you should act?" Jila-Jen had said. "How do you decide right and wrong?"

"I don't need a god to tell me I need to get along with my friends. I know I would starve if I had to roam the forest by myself."

"So you obey your laws because you think you will benefit. Do you believe you can break your laws any time you think you'll be better off?"

"It's not a law. It's a feeling. I *want* to get along. It's the way we are."

Jila-Jen had heard the itiji singing in the code the Drovils had created. It was the first thing he mentioned when he slipped off the frame and broke the silence.

"They're helping your enemies," Jila-Jen said. "You can hear them doing it. Is that right? Wouldn't you all be better off if they didn't do it?"

"They'll be killed if they don't."

"Shouldn't they be willing to die before they'll help your enemies?"

Vigdal had stretched out on his side with his head resting on a tree root. He had taken advantage of the release system on the frame the moment Jila-Jen had touched the ground.

"There are thinkers who claim they should behave that way," Vigdal said.

"So why don't they? Aren't their *feelings* strong enough? Isn't that what happens when you obey feelings instead of laws? Doesn't it mean you can do anything you feel like doing?"

Vigdal could understand Jila-Jen's confusion. He had just become the father of a winsome, stumble-legged daughter when the first descriptions of Harold and his wife had spread through the forest. From nowhere, without a whisper of warning, two creatures walked through the forest on their hind legs alone, with both hands free, pulling a cart equipped with the round things they called *wheels*, and armed with a two-handed weapon the male called a *bow*. Vigdal's whole life had become engulfed in a dream. Visions of other worlds had flooded his mind. Couriers had roamed the forest singing of the weapons and armor the humans were creating for the itiji. *Strike back. Join us. Fight for your children and your friends. Our time has come. The world has changed.*

And if it dazed him, what must it be like for Jila-Jen? For generations, before the oldest trees in the forest had taken root, the tree people had been using their dart-blowers and nets to turn itiji into pack bearers and sled draggers, ripping husbands from wives and children from their parents. From the day he first opened his eyes, Jila-Jen had been told that was the way things were supposed to be—the way the Goddess who ruled his city had proclaimed they should be. And then, in one violent moment, this strange creature from beyond the sky had killed the champion of the Goddess. And every Warrior of Imeten was supposed to believe the Goddess had reconsidered her position and decided the itiji should, after all, be treated as equals.

"I don't know what they believe, Jila-Jen. They could have rules and strict gods just like you. But I think the rules that last are rules that help us get along with each other. Harold says the humans have a theory very much like the theory many of

our thinkers advocate. Different things come into existence. And the things that help us survive and raise children tend to last—including feelings. You should ask Harold about their theory. He uses it to explain why we have two kinds of talkers on our world. And only one kind of talker on the world he comes from.”

“My people aren’t just talkers.”

“His theory explains that, too.”

They halted and reorganized in assaulting distance of the Drovil patrol. The itiji slithered under the armored blankets Harold the Human had helped them create. The stiff animal skins trapped too much body heat and irritated the skin around Vigdal’s front shoulders, but they covered him from head to tail and they would stop venomous darts.

Vigdal slipped toward the enemy camp with two of his warfriends clinging to his steps. The glow from a single fire pot marked the spot in the middle branches where the Drovils would be sleeping. Sentries would normally be posted about thirty itiji strides from the pot, in a rough circle, with a full Eight assigned to each watch.

Vigdal had learned to look at the trees through the eyes of a Warrior of Imeten. The sentry located in the direct path of Nama-Nanat’s advance was posted about where Vigdal had expected to find him. The sentry was crouching against the trunk of a tree, on one of the highest branches that would hold his weight. To an intruder in the trees, equipped with the eyes of his own species, he was positioned so he would blend into the bulk of the tree trunk. From the ground, to a prowler with the night vision of an itiji, he could be identified by the glow of the starlight filtering through the leaves.

The tree people fought their wars in the trees. The Drovils were still learning they had to watch for scouts and ambushers who used the ground as fluidly as they used the trees.

One of Vigdal’s companions had a weapon strapped to a harness on his back—the cumbersome item Harold called a crossbow. He and his partner were both so young they would have been placed in separate bands, where they would mostly watch and learn, in the days before the humans disrupted the world. One of them still hadn’t reached his full sexual maturity. They had been chosen for their task because they seemed to have a flair for the mechanical devices Harold had created for them. The loader could pick up iron darts with his teeth and insert them in the groove with the speed and finesse of a hunter who could take his prey with a single snap at the throat.

Vigdal raised his right front paw and waved it from side to side. The loader stared at him. He maintained silence, but he obviously disagreed with Vigdal’s decision.

Vigdal slid out of position and crept back to Jila-Jen. “We’ve found the sentry, but he’s too high for a crossbow shot. The angle is too sharp.”

He had already translated the sentry’s position into a description Jila-Jen could use. He had learned to think in three dimensions. He had taught himself to see the pathways and visual guides the tree people would use as they navigated through their world. You had to know which branches would support their weight, which gaps they could leap across.

Jila-Jen memorized the description as he listened. He recited it once, to make sure he had it right, and scurried up a ladder he had attached to a bottom branch. Vigdal wondered if Nama-Nanat understood the intellectual effort behind his description. Jila-Jen understood some of it.

Vigdal returned to his position. Above him, somewhere in the branches, a lone Imeten Warrior crept through the dark with a dartblower.

A fruit bounced off the branches on his right—the signal the Imeten dartblower was about to shoot. Vigdal counted to eight, twitching his right front paw with every count, and let out a single sharp yelp on the last twitch. He flowed to his feet and ran forward with his two companions stretching out beside him.

The Imetens knew Nama-Nanat would have them tormented and killed if they broke silence as they assaulted through the trees. There was a long moment when Vigdal wondered if they had heard his signal. Then he heard the first shouts from the enemy as the Imetens fell on the camp.

A chorus of itiji voices mingled with the din in the trees. Nama-Nanat had given the itiji two tasks. They were supposed to watch for any Drovils who tried to escape and finish off any enemy wounded who dropped from the trees.

The tree people could build cities and weapons but they could never create anything like the complex structures a band of itiji could raise in their minds. Vigdal felt—as always—as if the words flying between him and his bandfriends had formed them into a single consciousness. He could see everything eight sets of eyes could see. He could move as if he was part of one huge many-legged body.

"Concentrate on the runaways," Vigdal sang. "Ignore the wounded who can't run. Let no one escape!"

He sang a direction and three itiji broke from the positions they had assumed around the perimeter of the Drovil camp and began prowling through the trees in a standard search pattern. Four Drovils had already plummeted through the branches. Two were dead. One had a broken back. The fourth died beneath an itiji's claws before he could hobble to safety on a battered leg.

An itiji caught a flash of movement high in the trees, moved to get a better look, and felt a dart glance off his blanket. A Drovil was scurrying through the lower branches as if he was trying to break away from the battle. Another Drovil seemed to be protecting him.

Vigdal's neck muscles tightened. He threw back his head and screamed his best—and loudest—imitation of the high, screeching voices of the tree people. Somewhere above him, Jila-Jen was supposed to hear that unmistakable parody of the noises he and his fellows were flinging at each other.

The itiji who had spotted the runaway galloped along the ground after his quarry and Vigdal relayed his reports to the trees. Had Jila-Jen heard him? Was anything happening?

"They have darted the runaway," an itiji sang. "He clings to a handhold. I believe he is darted again. A tree devil falls near me. I kill him with a swipe to the face."

Vigdal had told his companions they should avoid some of the terms they had customarily applied to the tree people. *They are our allies now. We must think of them as people, just like us. Even the ones we fight. We must treat them just like we treat our own people when we fight with them.*

He would discuss the matter with them again, when they were calmer. Right now it was a minor matter. But someday some of the tree people might actually learn an itiji language. It seemed very unlikely now. But the world had become an unlikely place.

They counted the bodies in the morning. They had assumed they were attacking a Double Eight and they found thirteen dead and five cripples. If you added in the normal ration of commanders, each eight should have contained nine people—eight subordinates and one commander. Eighteen for the whole patrol.

Unless the patrol had been given an overall commander. In that case, the count had come up one short.

"There's no way to be sure," Jila-Jen said. "Sometimes one of the eight leaders takes charge. Sometimes they appoint someone extra. They aren't consistent."

"Can't you ask one of the cripples?"

"The two who can talk say we netted the whole patrol."

"But who knows if they're telling the truth?"

"Yes."

Jila-Jen had another matter on his mind. Vigdal could see the signs in the arch of his back, the movements of his fur, and the position of his fighting hand. Jila-Jen was holding himself as if he was expecting a blow—or preparing to deliver one.

"Does Nama-Nanat have any other messages for me?" Vigdal said.

"He has ordered me to give you a warning."

"A warning?"

"He says he knows you are our allies. He knows the Goddess has decreed we must accept you as equals. But that doesn't mean we must accept everything you do."

"We did everything Nama-Nanat decreed. I objected to his command to attack the patrol but we still obeyed his orders."

Vigdal had learned to speak the Imeten tongue almost as naturally as he spoke the nine itiji languages he had mastered, but some part of his mind always cringed at the way he had to talk about ordering and obeying. The Imetens had no words for the fluid, voluntary coordination of an itiji band.

"Three of the enemy bodies had missing legs," Jila-Jen said.

Vigdal didn't believe in gods, but he had learned some of the standard prayers when he had been young. He could steady his emotions with a silent recital of the complete text of the famous Prayer for Evening Calm while his mind sorted through possible responses.

"Tell Nama-Nanat I will take the necessary steps," Vigdal said. "Tell him it will not happen again."

It was the best he could do. There was no way you could apologize in the Imeten language without expressing some kind of submission.

"We don't eat our people," Jila-Jen said. "We don't eat *your* people."

"I will take the necessary steps."

"Will you have them punished?"

"I will have them punished. Tell Nama-Nanat they will be punished."

Jila-Jen's face fur stiffened. He stared at Vigdal through a halo of ferocity.

It was a good display. Nama-Nanat would be satisfied. But Vigdal had noted Jila-Jen's choice of words. He hadn't demanded that the culprits be killed or mutilated. He hadn't even demanded a beating. He had left the nature of the punishment up to Vigdal. For a Warrior of Imeten, it was an impressive exercise in diplomacy.

The tree people could survive indefinitely on fruits and leaves, gathering their food as they traveled. The itiji diet required more demanding arrangements. Normally, a band of traveling itiji would kill and feast every second day. If they were in a hurry, they could spend a little time each day catching small animals or slapping fish out of streams.

Sun-dried flesh was another alternative. Vigdal's warband had been living off four bags crammed with sun-dried flesh and the burned flesh the tree people and the humans liked to eat. Both substitutes felt dry and chewless. The burned flesh had a flavor that evoked unpleasant memories of charred, smoldering trees.

Vigdal led his band away from the Imetens and gathered them in the tightest circle they could tolerate.

"I've felt the same temptation myself," Vigdal said. "The tree people would proba-

bly eat *us* if we were plant eaters. But we must treat them exactly the same way we would treat our own people."

They started talking before he had finished—three or four at a time, in the way they always pursued a question when they were gathered with their own kind and weren't trying to communicate with the tree people and the humans. Harold had shaken his head the first time he had seen them do it, in the way that seemed to indicate he was seeing something puzzling and strange. But Harold had said he was awed, too. To the Imetens, as far as Vigdal could tell, it was another sign the itiji hadn't developed the self-control that won battles.

They knew Vigdal was right but they all had to have their say. Most of them wanted him to know they agreed. But they all hated the stuff in the bags. Two of them found it disgusting. The gourmet in the group couldn't resist a small paean to warm flesh and the complexities of the flavors and aromas stored in its juices.

Vigdal let them run on until he saw an opening. He told them about his promise to punish the offender and the whirlwind he received in response was just as agitated as he had known it would be. They hated the idea just as much as he had. But they knew they had to do something.

"Are you going to let them whip us? Did you tell them they could whip us?"

"Or cut off our ears?"

"Who is it going to be? How many do they want?"

"It was a natural thing."

"We must find the mildest punishment they will accept."

"I won't agree to anything more."

"They would eat us if they thought we were edible. We know they would eat us."

In the end, two volunteers accepted the burden. One of them really was one of the perpetrators. The other insisted he had kept his impulses under control but he would do what had to be done, since the true culprit wasn't willing to fulfill his responsibilities.

Vigdal carried the decision to Jila-Jen. "I have uncovered the transgressors. They are to eat nothing but the food stored in the bags from now until we return to Imeten. They will not be permitted to hunt any other food. We will present them to the Five Masters when we return and they will determine the rest of their punishment."

"That's all? That's their punishment?"

"It's far more severe than you may realize, Jila-Jen. But I also feel it is the most we should inflict on them now. We are still surrounded by the domains of our enemies. They are both good scouts and strong fighters. I would have denied them access to every kind of food but we would all be weaker if I did that."

"I will tell Nama-Nanat. He will not be pleased. He would have bashed in their skulls if any of our people had committed such an act."

Harold said the humans had studied the past on the world they had come from. They had dug up the bones of creatures that had been dead for more years than there were leaves in the forest. They could see, from the bones, how things that helped you live and have children replaced older things that weren't as good. Feet got faster. Muscles got stronger. The tallest trees received the light. Short trees died in the shade.

On Harold's world, they had something he called *seasons*. Sometimes it was very cold. Sometimes hot. They had large open spaces where the trees were far apart. The ancestors of the first humans had been creatures who started walking on two legs and descended from the trees.

Harold understood the Rule of Self-Nurturing Fortune. The creatures who walked on two legs could use their hands to make things and throw things, Harold argued.

And the more they used their hands, the more they needed their hands—and the minds that guided their hands.

The itiji began to talk so they could hunt better in bands, according to Harold's theories. And the itiji who talked the best, ate the best. They grew bigger heads and clever tongues instead of bigger teeth and stronger muscles.

The tree people could have developed in the same way the humans had. But this world was warmer than Harold's world and more uniform. The forest covered everything but the mountains. The tree people stayed in the trees. They lived in their world and the itiji lived in theirs.

It was a good theory. Vigdal believed it was essentially correct. But Harold had another theory that felt less convincing.

As the humans had become better thinkers, they had grown bigger heads. As had the itiji. And the tree people. But that created a problem, Harold claimed. Their hips had become narrower as they had stood up. How could their women pass those big heads through the narrow opening they had developed as they had become straighter?

The children of the humans, Harold said, were as helpless as seeds. Their heads were still growing when they were born.

The tree people were different, Harold felt. Their children were born with fully grown heads. They could scamper around and create problems from the day they were born. They had to be controlled. And this emphasis on control and coercion became a permanent part of the tree people's character.

Vigdal wasn't sure. It was true the tree people seemed like a churlish lot compared to his own people. But they must have some feelings that encouraged them to bond with each other. Could you build huge communities merely by coercing people with rewards and punishments?

The itiji hanging in the nets were sending a new message. Their tormentors were making new threats. *They say they will let us live. But they will blind us. They will crush all our legs. They will cut out our tongues.*

They had stopped singing the song of remembrance. Now they were truly frightened. Now they were pleading for help.

"The tree jumpers complain about *us*," Vigdal's youngest warfriend said. "They punish us for yielding to hunger. But when did we torment them? Do we do things like that to the creatures *we* eat?"

"The Drovils are trying to lure us away from the iron road," Vigdal said.

"And what will they do if we attack the iron road? Don't you think they'll carry out their threats? They'll blind and cripple the captives just so we'll know they're making a real threat the next time they do this to us."

Nama-Nanat claimed he believed the Drovils were baiting a trap. "The iron road is hard to guard," Jila-Jen said. "We can attack anywhere. The prisoners could be surrounded with an ambush."

"I can appreciate Nama-Nanat's logic," Vigdal said. "But please tell him I feel there are other factors he should consider. The Drovils don't care if we free the prisoners. They will probably put most of their guards on the iron haulers. A rescue attempt will probably be easier. And it will mean more. Every itiji who hears the news will sing about it. And praise Nama-Nanat's name."

"I believe Nama-Nanat has decided to attack the iron haulers. But I will tell him your thoughts."

Vigdal rejoined his warfriends and watched them become more intense while they waited for Jila-Jen to return.

"It's the iron. The iron is all they care about."

"And their share of the loot. You don't get a share of the loot when you rescue people from suffering."

"Make sure we get our share, Vigdal. We need every crossbow dart the humans can make for us. It's the only thing our beloved allies respect."

Their tails stiffened into spears as they talked. They turned toward the ladder when Jila-Jen returned and Vigdal broke away from them. He jerked his head at a fallen branch a good thirty strides beyond the ladder and hurried toward it without waiting for a response.

"Your band looks agitated," Jila-Jen said.

He was speaking his own language. To him, the possessive meant "the group you command." To Vigdal, it would normally mean "the group you're associated with" or "the group you belong to."

"They are angry. I believe I can persuade them to control their anger. But it would be better if I didn't have to."

"Your leaders ordered them to obey Nama-Nanat."

"We understand that. But they are tormented by feelings that burn like poisoned stings."

"Are you making a threat? Are you telling me they won't obey their orders if Nama-Nanat doesn't give them what they want?"

"I am only telling you the facts. I will try to help them control their anger. But their feelings could affect their actions."

"Nama-Nanat has considered your arguments. We will attack the iron haulers."

"Then you can tell him we will do what he says. But you should tell him the things I just told you, too."

"Would it ease the stings disturbing your band if we rescued the prisoners at the same time?"

"And how can we do that? With the numbers we have?"

Jila-Jen's posture changed. Vigdal didn't know what the shift meant, but Jila-Jen seemed to have softened.

"An all out attack might run into an ambush," Jila-Jen said. "But three skilled Warriors could slip through the guards around the nets."

"And Nama-Nanat would approve such a raid?"

"I believe he would let me do it if I asked him."

"They're hanging from the highest branches that can support their weight."

"We'll lower them to where they can survive the drop and cut them free. We can carry enough rope if we don't carry anything except our weapons and armor."

"It would be dangerous, Jila-Jen."

"I'm willing to take the risk. I would have to ask you a favor in return. But I'm willing to take the risk."

"A favor?"

"If I do it, I won't be entitled to a share of the ore we capture. I would have to ask you for shares from whatever your band gets. For all three of us."

Vigdal raised his head and eyed the light above the trees. He was standing on familiar ground. He had been trading favors since he was a child. His cleverest aunt had given him his first lessons in formal rhetoric in return for the time he spent tending her children. His aunt was a dreamy woman with a limitless appetite for romantic gambols and she couldn't have indulged herself without the help of a dependable child watcher.

"You will have to haul the extra shares yourselves," Jila-Jen said. "Nama-Nanat will insist."

"We will give you three shares from our portion, succeed or fail. And five if you succeed."

Jila-Jen's head jerked. He probably hadn't anticipated the extra offer.

"It would be easier to divide six," Jila-Jen said.

"Our leaders are counting on the iron."

"I understand. But we're talking about the lives of the captives."

"We'll make it six," Vigdal said.

He had, of course, assumed Jila-Jen would ask for the extra share.

Vigdal and his warband swallowed a hasty meal, napped for a third of a day, and set off for the iron road with the Imetens clustered above them. They kept their voices low but they argued about the bargain with Jila-Jen as they advanced. They had immediately realized they would be burdened with extra weight when they left the iron road and turned toward home.

"We shouldn't forget we'll be setting the iron haulers free. They can carry some of it."

"We'll still be carrying someone else's load."

"What if we have wounded? Do we have to leave them behind so we can carry Jila-Jen's bribe?"

"We're supposed to treat them the way we treat our own people. Why can't they do the same?"

"This is how they treat their own people."

"They have a philosopher who claims anyone who lets himself become a slave should be a slave. That he would have let himself be killed if he didn't have the mind of a slave."

"It sounds like the kind of philosophy they would think up."

"They don't all agree with it," Vigdal said. "I don't think Jila-Jen believes it."

"Enough of them believe it."

The iron road was essentially a trail that had been worn by the sleds itiji had dragged through the forest. A line of packed, exposed dirt ran through the trees like a river that had been robbed of its water.

Nama-Nanat arranged his forces in two groups about two hundred strides from the road. The distance had been chosen with a precision that indicated Nama-Nanat had a good feel for tactics. Too far, and the attackers would waste energy making the initial rush. Too close, and there would be too much danger an outlying scout would spot the ambushers.

Vigdal crawled under a tangle of flowering vines that covered a depression in sight of the road. He relaxed his muscles sector by sector, neck to tail, and focused on his ears. Behind him, on the ground under the Imetens, his warfriends had pressed themselves into anything that looked like it might give them some protection from a downward glance.

The itiji who pulled the sleds were whipped if they gave away their position, but their guards disturbed the creatures of the trees as they advanced. Vigdal picked up the first squawks and flutters when they were still so faint he had to close his eyes and make sure he wasn't being fooled by his emotions.

The stir created by the advance guards passed over him. He was wearing his armored blanket, but his back muscles still cringed.

Three itiji strained against the crossbar attached to the front of the first sled. The flat bed behind them was almost four strides long. A frame covered with hides contained a load of ore that must have weighed twice as much as the three itiji put together. Vigdal could feel his own shoulder muscles pressing against the crossbar as he watched. The tree people had carpenters who could smooth the bottoms of their sleds, but they filled them with the maximum load their slaves could pull.

There were no Drovils on the ground. Above him, guards trotted along branches and leaped from perch to perch.

Four pack bearers followed the sled, laboring under bags draped across their backs, with their necks secured to a long pole. Three single-yoke sleds crowded behind them.

He let out a truncated yelp as the first single-yoke sled passed his position. A short, harsh screech let him know his message had been received. He counted his heartbeats, allowing—he hoped—for the effects of his fear.

He didn't hear any extra commotion in the trees until he reached twelve. Voices started shrieking orders in the Drovil language. He lifted his chin off the ground and gave the slaves the best yell he could produce without rising from his hiding place.

"We are coming to save you. Run this way if you can. Prepare to fight for your lives."

The itiji assailing behind him broke their silence. Imetens screamed war cries. His warfriends swept past him and he leaped up and initiated a zigzagging pattern.

One of the slaves hauling a single-yoke sled turned off the road and started dragging his load through the vines and brush. The others were reacting the way they usually did. Half of them seemed to be looking up at the trees as if they were waiting for instructions.

Vigdal was supposed to hang back and sing a view of the overall situation while he presented a moving target to the Drovil dartblowers in the trees. His warfriends had closed on the slaves and started urging them to move.

"Who wants to be free?"

"Sing if you want to be free."

The critical factor was the time the itiji had spent in captivity. The slaves who had been captive less than a year always leaped at the chance to break free. The slaves who had been born in captivity could be paralyzed by the fear that had dominated them since they first opened their eyes. Some of them had even accepted the idea that they were inferior creatures who had been created to serve their captors.

Darts slapped against Vigdal's armor. A Drovil dropped out of the trees and leaped onto the back of the itiji who was trying to pull his load away from the fracas. A second Drovil landed on the sled.

Vigdal raced toward the two Drovils. He raised his pitch to underline the urgency of his words and added a request to the chorus of itiji voices weaving through the screams in the trees. The Drovils leaped off the sled and crouched on the ground with their war hammers poised. Padded armor hung from their shoulders. Iron helmets protected their heads.

A high-pitched reply advised him help was arriving on his right. He veered to the left, as if he was trying to circle the Drovils and reach the sled, and both Drovils turned with him.

It was one of those moments when everything worked exactly the way you hoped it would. Vigdal's supporter leaped on one of the Drovils from the back. The other Drovil jerked his head around and Vigdal pounced.

It was the longest leap Vigdal had ever attempted, but it did the job. His teeth ripped at the Drovil's unprotected face. The salty taste of blood tickled responses that had been developing since his father gave him his first pre-chewed bit of flesh.

He pulled back his head. The other Drovil was shrieking under the claws of the warfriend who had attacked him from behind. Vigdal turned toward the itiji who was yoked to the sled and glared at him with his teeth bared.

"Go. Keep moving. Get as far from the road as you can."

He slipped into his zigzag pattern and returned to his primary mission. Messages flickered across his consciousness and he tried to form them into an integrated pic-

ture. Three more Drovils had dropped from the trees—two dead and one thrashing as he died. A dead Imeten with a smashed skull had fallen near the big sled. Two warfriends had gathered around the four itiji who were carrying packs and started prodding them off the road. The pole fastened to their necks disrupted their movements but they seemed to be coordinating themselves.

Vigdal could understand some of the orders and outcries he could hear in the trees, but he still hadn't mastered the intricacies of three-dimensional combat. On the ground, you could break an enemy line or strike it from the flank. In the trees, the vertical dimension created possibilities that multiplied the complexity. The Imetens maneuvered in unimaginative, rigidly disciplined Eights, but he couldn't have evaluated the situation if he had grown wings and flown through the leaves.

Had the Imetens broken the Drovil defense? Was a downward counterattack by the enemy worse than a high-speed ascent? He could pick out one useful element in the overall pattern communicated by the shrieks in the trees. Nama-Nanat and his Warriors had captured the Drovils' undivided attention.

The Drovil dartblowers were aiming their tubes at targets in the trees and ignoring the slaves and their rescuers. The Drovils on the ground had all tasted their last breath—or would when the nearest itiji added a final bite or claw stroke to their wounds.

The three itiji who had been pulling the oversized sled were arguing with each other. Two wanted to escape, the third was moaning about whippings and recapture. A warfriend was pleading with them, but they didn't seem to hear him.

Vigdal stopped beside the sled. "Chew the hesitater free. Help the other two pull. Get them off the road. The Drovils are concentrating on the fight in the trees. Get them off the road before the situation changes."

They left one of the single-yoke sleds on the road. Its slave had scrunched up on the ground, with his face pressed between his forepaws. The slave who had been released from the big sled sat down beside him.

Vigdal joined forces with three warfriends who had wrapped their jaws around any hold they could find and began to help the two itiji who were still yoked to the big sled. Tree roots and low-lying bushes forced them into tedious twists and detours. His warfriends couldn't talk with their mouths full, but their grunts and tail whips told him everything he needed to know. They were hunters, not haulers. Their teeth were made to rip flesh, not grip loads.

The two freed slaves were working just as hard as everybody else, but they were using their shoulders, not their mouths, and they couldn't stop the flood of words their rescue had unlocked.

"How far do we have to go?"

"How many Imetens are fighting in the trees? The Drovils have reinforcements standing by at every camp on the road."

"We should have made Lenalva come with us. He just needed time."

"Wouldn't we move faster if we left the iron behind?"

Vigdal released the bit of leather strap he had been clutching with his grinders.

"Just keep moving. The further we go, the better."

"Then why not release us? Why are we still pulling this load?"

Most of the itiji who roamed the area in huntbands had edged away from the battle zone, but the commotion had attracted its quota of curiosity seekers and news tellers. The Drovils had apparently set up an ambush of their own. Reinforcements attacked Nama-Nanat's Double Eight just as he thought he had scattered his adversaries.

"They must have been following the ore party," one of the observers sang. "None of

us saw them. They must have been spread out. Or scattered through the highest branches."

The news teller's voice deepened. He shifted into the measured rhythms of the fourth mode of the Agalav epic tradition. "Hear the orders of Nama-Nanat. He will fight as long as he can breathe. Carry the ore to Imeten. Obey the will of the Goddess."

Vigdal let go of his hold. He threw back his head and sent the cry of an itiji calling for help ringing through the trees.

"Hear me. Hear my plea. Help us pull the load we have captured. Help us free your friends and kin. Tell our friends and kin in Imeten we need their help. Nama-Nanat and his Warriors are dying so we can escape with our loads. Give them the response they deserve."

A voice took up the cry somewhere ahead of him. Another voice sang faintly on his right. No itiji could hear a message like that without passing it on.

Whether they would actually come to his aid was, under the circumstances, a different matter. You could, after all, appease your conscience by noting that Nama-Nanat was really trying to increase his city's iron supply and weaken its major enemy.

Vigdal wasn't completely certain he would have responded to the call himself. Under the circumstances.

The itiji who were sending reports couldn't follow the battle in the trees in any detail but what did you need to know? Nama-Nanat's Double Eight had taken casualties during the initial attack and the enemy had counterattacked with a force that outnumbered the Warriors he had left. The outcome was as predictable as the path of a well-aimed dart.

Vigdal's warfriends couldn't talk with their mouths full but they all grunted when the freed slaves voiced the obvious. Tails beat on the ground. "The Imetens are outnumbered. How long can they hold? The Drovils will be on us and we'll all be whipped back to the road."

"Cut us free. Leave the iron. Does all this dirt mean more than us?"

"The Warriors of Imeten are the best fighters on the Great River," Vigdal said. "Half the Drovil army comes from weak cities the Drovils have conquered. Save your breath. Pull. Don't make me stop to talk."

The noise from the battle faded. The observers became their only source of information. Then their ears picked up the faint hint of battle shrieks. Nama-Nanat was fighting for every branch, but the battle was creeping steadily closer.

Vigdal had already decided they would abandon the load when the situation became hopeless. But what if he waited too long? And the Drovils overwhelmed them before they could free the itiji who were still yoked to the sleds?

Four itiji had trotted out of the trees and grabbed holds. The gadabouts prowling around the flanks of their little caravan could have filled a marriage feast huntband, judging by the voices he could distinguish.

A voice from somewhere ahead of them snagged Vigdal's attention. "Help is coming. Two Eights of Warriors were patrolling near you. They're on their way. Huntbands have been asked to help. Itiji are leaving the camps near Imeten. Your friends and kin have heard your call."

Vigdal pointed his face at the treetops. The rhythms of one of the oldest itiji hunting songs rolled across his tongue. "Hear the words of your huntfriends. You are not alone. You are never alone."

"But how many are near here, Vigdal? And how many more are the Drovils sending?"

A voice yelled a warning. Vigdal turned his head and realized one of the small sleds had stopped moving. The captive who had been pulling it was staring at the air with his mouth hanging open.

Vigdal broke into a run. His eyes searched the trees. "Get down. Cower. Make yourself small."

The captives attached to the pole flattened themselves against the ground and made a determined attempt to huddle under their packs. The itiji who were bound to the other sleds contorted themselves into the tightest balls they could achieve.

"Stop hauling," Vigdal yelled. "Cover the captives with your armor. Unarmored take cover."

Dark bodies sped across the ground. Armored itiji threw themselves on the unprotected captives. Vigdal stopped in front of the sled puller who had already been hit and tried to look reassuring.

"We'll get you out of here. We won't leave you behind."

The tree people used darts tipped with a lethal poison when they fought each other but they usually attacked itiji with a poison that induced temporary paralysis. Dead itiji made poor slaves.

Vigdal's teeth dug into the hide bonds tied to the cross bar. The dartblower in the trees seemed to be intelligent. He could have hit them with more darts but why bother? He had already forced a halt.

The hide was tough and thick and it was hard to gain a good purchase. Every itiji knew the tree people took some of their hides from the bodies of dead slaves.

The captive's rigid form dropped away from the bar. Vigdal gripped a loose strap and dragged him across the ground without worrying about scratches and bruises. Two armored itiji answered his call and they managed to coordinate their drags and pushes and wrestle him onto the top of his load.

"I'll haul the sled," Vigdal said. "Give everybody the best protection you can. Try to do some work while you're at it."

The captives who had been attached to the pole had been gnawed free. Two of them crowded close to Vigdal so they could get some extra protection from the bulk of his sled. He pushed onward with his jaws and back muscles straining against the load and sheltered them with his armor when he felt he could honorably stop for a break.

"Do you understand the situation in Imeten?" Vigdal said.

"We will be free if we get there. The Warriors will help us defend ourselves."

"I want you to go on ahead of us. Carrying your loads. Just head straight south. Your pouches will give you some protection from darts."

"We could move faster if we emptied them."

"We can use the iron. The Warriors have their own mine but every extra load helps. Get your load to Imeten if you can. Show the Warriors they can depend on us."

"Are they capable of gratitude?"

"They know a useful relationship when they see it. They are fighting with us now because they believe their Goddess has commanded it. We should give them more practical reasons."

"And what will you do, helpfriend?"

"I and my warfriends will pull the loads. With the help of any unarmored volunteers who wish to join us."

The taste of twisted hide dominated Vigdal's senses. Was this what the captives endured day after day?

And they had no hope it could end.

The itiji lurking on the fringes had worked out a way to help. Two or three lurkers would run out of the trees and grab holds. The stalking dartblower would harry them with well-aimed shots, a dart would penetrate an unarmored muscle, rescuers would drag the victim to safety, and another volunteer would take up the burden.

There was nothing they could do to fight back. They had to slink along the ground, tormented by the helpless rage of hunters who were being hunted.

Voices sang on all sides. Reinforcements were hurrying to the aid of the Drovils. The two Imeten Eights were drawing closer.

"Nama-Nanat has fallen from the trees. His Eights have been broken. His Warriors fight isolated and alone."

Images raced through Vigdal's mind. The Drovils could contain the remnant of Nama-Nanat's Warriors with a portion of their force. The rest would press the pursuit and overtake the sleds. . . .

He yanked his mouth from the strap and threw back his head. "Stop advancing! Pull the sleds together! Form a triangle with the big sled."

Voices shrieked above them while they were still pulling the sleds into place. "That's good enough," Vigdal yelled. "Get inside. Make yourself small."

The itiji huddled inside the impromptu fort. There were big gaps at the corners but that didn't matter. Their armor would protect them from attacks from above and the sleds would hamper missile attacks from the sides.

"They'll have to come get us," Vigdal said. "In our element. One on one."

"There are more of them coming. Have you considered that?"

"They've got help coming from their nearest camp."

"And our help is further away."

A voice screamed above them. "Your guardians have been scattered, itiji. You are now defenseless. The Warriors who were protecting you have all been killed or shattered."

Vigdal's companions stirred under their armor. In a moment every voice in the warband would probably be shouting a reply.

"Let me talk to him," Vigdal said. "Please."

"What are you going to do? Bargain?"

Vigdal's tail thrashed. He pressed himself against the ground as if he was making a stalk and let his fatigue and anxiety color his voice.

"We still have teeth and claws, fruit eater. We can still give ourselves a good meal when creatures like your fat king waddle our way."

It wasn't the best insult he had ever phrased but it touched the same sore spot that had inflamed Nama-Nanat and Jila-Jen. And it insulted their king in an area in which he was conspicuously vulnerable. It had been a long time since anyone had seen Lidris of Drovil leap between a pair of branches.

Voices screamed. Something heavy crashed into a warfriend's armor. The warfriend jumped and an iron hammer slipped off his back.

The leader in the trees shrieked a threat at the subordinate who had lost control. The hammer thrower would be facing a painful future, apparently, if he didn't recover his weapon before he returned to his base.

"I'm all right," the warfriend who had been hit with the hammer murmured. "My back hurts. But I can still fight."

There was a song celebrating the haunches of the velagar—the fat, tusked creature that lived on roots and fallen fruits and formed one of the staples of the itiji diet. It popped into Vigdal's head and he realized he could translate it into the language of the Drovils without doing too much damage to the match between the words and the music. And substitute King Lidris for the velagar.

"Listen to me. Join in. Sound tired."

"Don't you think we are?"

He kept it to a single stanza. The band joined in on the repeat and he let his tail thrash in time with the music. Eyes glistened. They might be fatigued but they weren't daunted.

He had tried to look at the situation from the viewpoint of the tree people when he had arranged their impromptu barricades. There were no heavy branches directly overhead. The major weakness in their position would be two bottom branches that were located an easy jump from the sleds.

Every warband had one or two clowns. Theirs was a good-natured dance leader named Laga Duvo Ludac who had developed a perfect imitation of an over-excited tree dweller. On the third repetition, Ludac counterpointed the song with a good imitation of a tree dweller chattering like a frightened prey animal. Three voices shifted the rhythm to an over-emphasized rise and fall, in one of those moments of collective inspiration that characterized good songfests, and they all took up the new variation.

Fat, fat haunches. Glorious haunches. Thank all the gods for fat King Lidris.

Eight bodies landed on one of the bottom branches. Four lined up on the other branch. Their leader shrieked an order and they leaped onto the sleds and hurled themselves on the warband.

It was the kind of fracas Vigdal had been trying to provoke, but that didn't make it any easier. They were crowded into a space that was so small the itiji were just as hampered as their awkward adversaries. The Drovil who swung his upraised hammer at Vigdal's skull had to balance himself with his other hand, but Vigdal couldn't dodge the blow by moving right or left. He pushed himself forward, into the arc of the falling arm, and realized the Drovil was holding a thick iron knife in the fist that was resting on the ground.

A paw raked the knife hand. The warfriend on his right had seen he was in danger and reacted. Vigdal reared up and slashed at his adversary's face with both front paws. He turned his head and closed his jaws around the arm that held the hammer.

His teeth dug into the Drovil's padded armor. It was made out of a tough, woody material he knew he couldn't bite through. But now that he had the arm immobilized, he could jerk his head and bite into the exposed flesh near the Drovil's wrist. Bone crunched. Blood flowed. He pulled back his mouth as soon as he was certain the arm had been crippled and turned to his left in response to the snatches of information he was picking up.

"Killed one."

"Blinded with my claws."

"Stabbed by a sword."

"My rear left paw is crushed."

"On my right. Help me."

He added his own voice to the clamor as he threw his weight on another sword wielder. "Kill them or maim them. They must not follow us. Let no one escape your fury!"

Bodies sprawled across the ground in strange positions. Wounded enemies moaned in pain or stared at them with angry eyes. Three of the enemy wounded had stumbled away from the sleds and Vigdal had assessed their wounds and let them go.

Two itiji were dead, two wounded. One of the wounded had a rear paw broken by a hammer. The other one was lying on his side staring at a mangled tear in his stomach.

Vigdal stepped around three dead Drovils and took his place behind the bar of the sled he had been hauling.

"We need to start moving. We've gained some time but it won't do us any good if we don't start now."

Exhausted faces stared at him.

"You want us to keep hauling? After this?"

"We'll be lucky if we manage to save ourselves."

"We've hurt them. They won't forget this."

Vigdal fought back the urge to lie down. How could he offer them words after the shock and strain they had just endured?

They weren't fighting just to kill their enemies. They were creating an alliance—a bond with the Imetens. Their battles were a means, not an end.

"We have something our friends and kin need," Vigdal said. "We can still save it. Help is on the way. We should try to save it if we can."

He tipped back his head. His voice sang across the forest.

"Tell them in Imeten. Tell all who can hear. We have defeated the Drovils. More are coming but they are well behind. We are pulling our loads and our wounded. We are dragging the iron to our mindkin. Come to us as we come to you. Come to us before they catch us again."

A voice rose in the trees ahead of them. Another voice took up the call on their right.

Ludac was lying against a sled. He raised his head and Vigdal realized he was looking at the self Ludac covered with his clowning.

"You have committed us, Vigdal. You have committed us without our consent."

"We have to try," Vigdal said. "We can abandon the loads if they overtake us."

Words flew at him from all sides.

"And try to run when we're tired?"

"We've fought. We've killed. We've freed slaves."

"You spoke for the band. Without our consent."

"It's just a few extra loads of iron."

Ludac stood up. He stalked toward the big sled and Vigdal waited for him to say something funny.

"The message has been sent," Ludac said. "Our friends and kin have heard our promise."

"It was the only thing we could do," Jila-Jen said. "There were too many guards."

"And the captives were already dying. . . ." Vigdal said.

A noisy stream crashed over a rocky incline a short leap from Vigdal's forepaws. They were meeting alone, in the most isolated place Vigdal could select. Every itiji in Imeten knew they were talking but Jila-Jen's scouts had assured him there were no ears within three hundred paces.

"We couldn't have rescued them even if we'd reached the net," Jila-Jen said. "The Drovils would have slaughtered us before we got a rope tied to the net."

"You didn't even try to reach the net. You gave up before you'd blown a single dart at the guards."

"They had guards everywhere we looked. We could see they'd be swarming all over us as soon as they realized we'd worked our way through them."

"The captives hadn't asked to die, Jila-Jen. You could have left them alone."

"They were suffering. They were threatened with mutilation. You would have done the same thing."

Jila-Jen had been crouching with his head lowered—as if he had been talking to one of his superiors. He was keeping himself under control but Vigdal could hear the shriek he was holding in his throat.

"We knew the guards would be all over us as soon as we blew the first dart," Jila-

Jen said. "We would have been killed before we got near the nets. And your friends would still be hanging there."

Vigdal stared at the ground between his paws. He had planned every word he would say before he had arranged this meeting. I will say this, he had thought. And he will say that. But it never worked out the way you thought it would.

Had Jila-Jen known three Warriors couldn't free the captives when he had made his offer? Had he planned it this way from the start?

Isn't that what happens when you obey feelings instead of laws? Doesn't it mean you can do anything you feel like doing?

"You felt it was the right thing," Vigdal said. "You responded to their suffering."

"I did what you would have done. If you could have done it. If you could have approached as close as we did. And used our dartblowers as well as we can."

Vigdal's tail twitched. He raised his head and pounced.

"Don't you think we could have? Don't you think we could have worked a crossbow duo close enough to kill them if we wanted to? You told me you could free them. You told me three skilled Warriors could slip through the guards and free them."

"They're free. They got the only freedom anyone could give them. They're free and you owe me six shares."

"I said three if you tried. And six if you succeeded. Am I supposed to tell my wife I gave up my shares so you could kill our friends? And call it success?"

Vigdal had tensed into a fighting crouch. Jila-Jen had his sword but he was armed, too. Itiji were always armed. Wherever he went, he had teeth in his mouth. And claws at the end of his legs.

And the ground was his element. . . .

He raised his right paw. He settled back into a sitting position. He let himself indulge in the little bark another itiji would have interpreted as a wry laugh.

"You'll get your six shares. I've discussed it with my wife and the Five. We feel we have done more than our share. We have doubts about the way you acted. But we are building a band with your people. You do not build a band by quibbling over the sharing of the kill."

"And when will I get it?"

"You think I don't have to keep my promises, don't you? You think I can do anything I want because I don't believe in the gods?"

"We aren't discussing philosophy, Vigdal. I led two young Warriors into danger. Do you know what it took to get that close? Nama-Nanat and twelve of his Double Eight died so you and your friends could escape."

Vigdal's teeth clamped on the retort that quivered in his throat. He had lost three warfriends out of the eight who had walked out with his band. Four children were going to stumble into adulthood without a father to guide them.

And what did Nama-Nanat's sacrifice have to do with you, Jila-Jen? You were skulking into dartblower range while Nama-Nanat and his Warriors were fighting to the death.

He jerked his head. "If you go five hundred paces that way you'll find the sled I pulled here. With six bags beside it. I think you'll find every bag will hold a full share."

Jila-Jen stared at him. Vigdal couldn't read all the emotions crossing his face, but he could understand the confusion behind the parade.

"Then why are we having this conference?"

"I wanted to hear what you had to say," Vigdal said. "Every itiji in Imeten knows what you did. Every itiji you encounter will know what you did. And what you have said."

He straightened up and tried to capture some of the authority of the elders and harmonizers he had been watching since he had been a child. "They will come to

their own conclusions. But it will never be forgotten. They will all think about it when they work with you."

"And they will all decide I should have died like a good itiji would."

"Some will. Some think you did the right thing and should share what we agreed. Some think you did the right thing and shouldn't share. Some think you never planned to free the prisoners."

"And what do you think?"

"I think the Five Masters are right. We should pay you and tell the story."

"You don't have any thoughts of your own?"

"I think you have decided you can do anything you want to. And I should remember that when we work together."

"And I should think you are different?"

"I'm an itiji, Jila-Jen. Itiji have each other."

He nodded at the location of the sled. "Take your share. We made a bargain. And we will keep it."

Jila-Jen's face swelled. He reached for his sword and Vigdal fought back the urge to strike before the blade could leap from its hooks.

Jila-Jen turned away. He grabbed the rope he had used to descend from the trees and ascended into the leaves hand over hand. He paused on the lowest branch, secure in his element, and looked down on the creature who lived in the world below.

"I'll fill the bags till they're ready to burst. And while I'm doing it, consider this, itiji—if you don't believe in the gods, why should *we* believe the Goddess wants you to be our equals?"

Vigdal watched him as he leaped to the next tree and fell into the rhythmic grace that could carry him to places where no itiji could follow.

This wasn't the first time he had been confronted with that question. The Five had pondered it, too.

The Imetens needed them. They couldn't defend themselves against Lidris without the itiji. Eventually they would see that.

The itiji's efforts might not be enough. Lidris might prevail no matter what they did. They would just have to do their best. And hope they got a little help from luck.

Or the gods. ○

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NEXT ISSUE

JANUARY ISSUE

In our January issue, we start the year off with a sparkling novelette by Britain's prestigious Edge Hill-Prize winner, **Chris Beckett**. In his new tale, we follow the misadventures of "Two Thieves" and keep our fingers crossed that their larcenous nature doesn't interfere too much with their survival instincts. The issues counterweight is an excellent new novella by **Kristine Kathryn Rusch**. In a locked-space-station mystery, hotelier Hunsaker must get some "Killer Advice" if he hopes to track down a murderer before losing too many guests!

ALSO IN JANUARY

Elizabeth Bear's first two stories for us have both received Hugo Awards. We'll see what happens to the third. "Dolly" is another mystery tale, and this one contains more than a passing nod to the works of Isaac Asimov. In new author **Gwendolyn Claire's** short story, Riti makes a desperate journey across India so that she can spread "Ashes on the Water." New author **Ian McHugh** presents us with a bizarre tale about an unusually strange carnival troupe who must protect the world from a vicious "Interloper." Long-time *Asimov's* author, **Steve Rasnic Tem** spins a heart-breaking tale about persevering "Visitors."

OUR EXCITING FEATURES

January brings our annual Readers' Award ballot along with the year-ly Index. Sharpen your pencils or warm up your computers so you can access our online form, but don't forget to VOTE for your favorite stories, poems, and art! **Robert Silverberg's** "Reflections" ponders what is lost in "The Ruin"; Klaxons are blaring in **James Patrick Kelly's** On the Net: "Warning: The Internets May Be Hazardous to Your Health!"; **Paul Di Filippo** contributes "On Books"; plus we'll have a set of poetry you're sure to enjoy. Look for our January issue on sale at newsstands on November 9, 2010. Or you can subscribe to *Asimov's*—in paper format or in downloadable varieties—by visiting us online at www.asimovs.com. We're also available on *Amazon.com's* Kindle!

COMING SOON

new stories by **Bill Pronzini & Barry N. Malzberg**, **Kristine Kathryn Rusch**, **Jack Skillingstead**, **Neal Barrett, jr.**, **David Ira Cleary**, **John Kessel**, **Sara Genge**, **Carol Emshwiller**, **Ian Creasey**, **Nick Mamatas**, **Alan DeNiro**, **Aliette de Bodard**, **Jeff Carlson**, **Nick Wolven**, **William Preston**, **Paul McAuley**, and many others!

THE BIRD OF THE RIVER

by Kage Baker

Tor, \$25.99 (hc)

ISBN: 978-0-7653-2295-9

Baker returns to the world of *The House of the Stag*, her World Fantasy Award nominee, for a coming of age story set on a fabulous riverboat.

This is the story of Eliss, the teenage daughter of Falena, a woman who has fallen on hard times and is addicted to a sort of narcotic. Eliss finds a job for her mother, a trained diver, aboard *The Bird of the River*, which plies a regular trade route. Like other such vessels, it uses divers to remove snags and salvage wreck-kage, which the captain trades for supplies.

This seems a promising move. Then, just as they are becoming comfortable on board, her mother is trapped underwater during a dive and drowns—leaving Eliss the sole support of herself and her younger brother, Alder, whose father was one of the elf-like Yendri.

Surprisingly, in spite of the tragedy, Eliss finds a new life on board the *Bird*. She has already begun to make friends among the crew, which is surprisingly diverse. The captain, Glass, is a reclusive giant, who spends most of his time in his cabin and drinks a surprising amount of whatever liquor can be found in the riverside towns.

The first mate, Mr. Riveter, is in charge of the day-to-day running of the boat. Others on board include a cartographer—an apparently aristocratic woman with a cabin of her own; several seemingly carefree musicians, who play to ease shipboard work and to entertain townspeople; and the families of the various crew members. As long as Eliss can pull her weight, the crew is willing to accept her.

And before long, she discovers an unexpected talent: the ability to see things beneath the water's surface. This wins her a position as lookout—a job she is soon doing better than anyone else on board. This secures her place on the ship, saving her the fear of having to find a way to support herself and Alder, who is beginning to fit in with the children aboard.

Eliss's life is complicated by the arrival of a young man her own age, Krelan, who gets a job based on what appears to be a forged letter of recommendation. Eliss quickly figures out that he is an agent for a noble family, whose son was found drowned in the river. It was the young man's body Falena was diving for when she met her death. It is clear that the noble was murdered—he was found headless—and Krelan's mission is to avenge the killing. Eliss and he eventually team up, and much of the remainder of the book follows their adventures in tracking down the truth of the matter.

Baker weaves echoes of other river stories into this apparently simple travel tale. Eliss's piloting lore owes much to Mark Twain's education in that trade in *Life on the Mississippi*. The magical elements are kept to a bare minimum, but there's enough for the book to qualify as a fantasy and to give the plot a forward momentum, as when Alder decides to seek out his Yendri roots.

The Bird of the River also displays Baker's unusual emotional range, covering the ground from tender

ness to rich comedy. Much of this grows out of the juxtaposition of the fantastic with the completely mundane, such as Krelan's misadventures after being assigned as a galley helper, under the baleful eye of an unsympathetic cook.

Baker's death earlier this year truncated a career that was already quite accomplished. For another recent title, check out her steampunkish darkly comic novel, a sort of prequel to her "Company" series, *Not Less Than Gods* (also from Tor). The books now being released are a reminder of just how much we could have had to look forward to if her life had not been cut short.

Baker, who just won a much-deserved Nebula for her novella "The Women of Nell Gwynne's," was only beginning to receive recognition for her work in both fantasy and SF. Her death at age fifty-seven is a great loss to the field.

KRAKEN

by China Mieville

Del Rey, \$26 (hc)

ISBN: 978-0-345-49749-9

Strange cults battle over the fate of London in Mieville's latest, which carries on his fascination with diverse urban settings.

The tale begins with a young man, Billy Harrow, working as a curator in the British Natural History Museum. His particular specialty is the giant squid preserved in a huge tank in one of the exhibit rooms. The disappearance of the squid—against all probability or common sense—opens the action. Harrow cooperates with the police investigation, then returns to his flat, where the police tell him they will upgrade his security. Not certain why he needs it, he invites in a friend, Leon—who brings in a package he found left at the door. When Harrow opens the package, chaos ensues. For the rest of the novel, he is essentially on the run.

Where he runs to, who he runs with, who he runs from—those become the meat of the story. The missing squid is the key to many things, it turns out. There is a whole religion, little known except to its adherents, built around squid gods, with a rich and complex body of scripture. Because of his work in the museum, Harrow finds himself considered one of its prophets—not a position that gives him

any safety, because the believers in the squid also believe in a coming apocalypse. And whether he believes or not, Harrow is in a central role.

The opposing forces are spectacularly evil. Two of them, named Goss and Subby, kill in nightmarish ways, showing a kind of glee in dealing death. They are currently in the service of the Tattoo—who is literally a huge, mobile face tattooed on the back of a young man. The Tattoo is a sort of overlord of London crime, with a gang of vicious mutant toughs to do his bidding.

He too has an interest in the squid's whereabouts—whether because he can't stand the idea of anyone else controlling things on his turf or because he plans his own apocalypse isn't immediately clear. What is clear is that having come to Tattoo's attention, Harrow is in deadly peril.

He finds allies among the kraken worshippers, including Dane, a sort of holy warrior whose mission is to protect the cult and its place of worship. Harrow quickly becomes uncomfortable among the cultists, and decides to try to go it alone; to his surprise, Dane comes along, helping him find safe houses and advising him on strategies for avoiding the numerous bad guys on his trail.

At the same time, an extremely quirky police unit—the FSRC, a special squad with an interest in cult activities—is avidly following the case. Its members include an academic who is a sort of connoisseur of cults, joining one after another to partake of its secret lore, a no-nonsense inspector, and Kate, a foul-mouthed and very tough street cop with an unexpected talent for cult work. They'd like very much to get to the bottom of the rumors of an apocalypse, and they'd like even more to shut down the Tattoo's operation. But to do either one, they need more clues than they're currently getting.

Finally, Leon's old girlfriend is desperately trying to find out what happened to Leon, who has disappeared without notice. She's convinced Harrow had something to do with it, but to find out what,

she has to find him. She goes searching through parts of London that don't appear on any maps, visiting places where she thinks she can find news of the two men. Which of course puts her directly in harm's way, as an encounter with Goss and Subby makes amply clear. Even that isn't enough to dissuade her.

As the novel builds, the characters delve deeper and deeper into the conflicting schemes of odd cults and the inhuman ambitions of strange gods. Mieville handles it all like a virtuoso, with Lovecraft-like building of the paraphernalia and literary foundations of his various cults, evocative glimpses of a London only partly the same as the one his readers can visit, and a wildly varied cast of characters. He gets a good bit of humor into the dialogue, much of it when Kate is onstage. And the rhythm of tension and release is orchestrated with a sure hand.

If you're in the mood for a big, complex read that takes a modern urban setting and fills it with the kind of paranoid supernatural horror that began with Lovecraft, all with a wink at contemporary pop culture, this one's your kind of book.

COYOTE HORIZON

by Allen Steele

Ace, \$7.99 (mm)

ISBN: 978-0-441-01849-6

COYOTE DESTINY

by Allen Steele

Ace, \$25.95 (hc)

ISBN: 978-0-441-01821-6

This is a two-volume novel set in Steele's "Coyote" universe.

The plot focuses on several characters from families of the planet's first settlers. Key among them is Hawk Thompson, a customs inspector with a past that includes the murder of his own father. Only family pull has let him have a position from which he may be able to reestablish a normal life.

Two pieces of luck change his life.

First, he spots an infiltrator, a fugitive from the warped politics of Earth who comes to Coyote to strike a blow against the settlement of other worlds. He turns him in and wins points, but makes a serious enemy.

Shortly thereafter, he is asked to screen the ambassador of the *hjadd*, whom Coyote's leaders wish to bring through customs with the minimum of interference and without possible insult by ignorant humans. During the screening, sensing Hawk's discomfort with the process, the alien gives him a small box, which he says contains the book of Sa'Tong. When Hawk begins to read it, everything changes.

Meanwhile, Hawk has befriended his neighbor Melissa, a young prostitute he saved from a vicious assault by a client. He did so at the price of drawing attention from his parole officer, who winks at it because saving a life is more important than following the rules. But with his new discovery, which he shares with her, his priorities change. He quits his job without notice and the two of them take off for the outback, doing their best to obliterate their trail.

Meanwhile, Steele shifts the spotlight to another set of characters. Sawyer Lee, a wilderness guide, takes on one of the richest men on the planet as a client. The job takes him to a strange settlement in the far north, where an odd cult makes use of an indigenous herb mostly known for its nettle-like sting. What the cultists have discovered is that the herb's smoke, when inhaled, induces telepathic states and mass consciousness among its members. And two of those members are Hawk and Melissa, who have brought the insights of Sa'Tong to the community. The combination of the book's teachings and the herb's expansion of their consciousness opens up unexpected possibilities.

The rest of the book follows Hawk and Melissa as they begin to return to mainstream Coyotean society, bringing the teachings of Sa'Tong to the human race. Naturally, there are complications arising

ing from the radical alterations of society that are the logical consequences of the SaTong teachings. The fact that it is the prevalent philosophy of almost all other civilized races does not prevent humans with a stock in the status quo from fighting against the new ideals. One of them is the fugitive Hawk had intercepted while a customs inspector. The man finds a way to take revenge—and in doing so, throws two worlds into unexpected isolation.

Steele has built up Coyote and its inhabitants through several volumes, and this is a culmination of the work he has put into the series, which is in some ways his equivalent of *Dune*. At the same time, it is a kind of homage to Heinlein's *Stranger in a Strange Land*, with its clash between an idealistic otherworldly religion and the vested interests of society.

Even the central message of SaTong has clear echoes of Michael Valentine Smith's mantra, "Thou art God." Steele has his own story to tell, though, and the two-volume novel draws heavily on the fascinating history and world-building that have marked the "Coyote" series.

Those who appreciate far-reaching SF with big ideas and strong world-building are likely to find this one very much to their taste. The two books can be read independently of the previous books in the series—but be warned. Once you've gotten through them, you're likely to want to go back and read the rest.

THE BUSINESS OF SCIENCE FICTION

by Mike Resnick & Barry Malzberg
McFarland, \$35 (tp)
ISBN: 978-0-7864-4797-8

Resnick and Malzberg, two thoroughly seasoned pros, have been carrying on a conversation about the facts of life for the SF writer in the pages of the *SFWA Bulletin*—one of the best publications I know of for working writers—for over a decade. It's been a provocative, insightful look behind the scenes of the publishing biz, especially as it relates to the work-

ing genre writer—and here is the best of it in book form, from an academic publisher with a very respectable SF-related list.

The two writers differ in many ways. Resnick has had considerable commercial success and is a frequent award winner, and he has the optimistic outlook that such success often brings. Malzberg has had critical acclaim, but on the whole has never hit the bull's-eye in the popularity polls, and reflects it with a resigned good humor.

Each has done a wide range of work, and each brings with him the hard-won knowledge of all the bear traps and seductive myths that confront the would-be professional SF writer. Between them, their credentials include novels, short fiction, work in numerous other genres, large amounts of non-fiction, editing magazines and anthologies, working at a major literary agency, and observing first hand almost every good and bad career move an author can make. And each of them writes from the point of view of one who, whatever else, loves the field.

The topics here cover a wide range: foreign sales, anthologies, work for hire, agents, print on demand, magazines, and "really dumb ideas," to pick just a few. While both men came up at a time when print ruled the roost, they are aware of the growth of the electronic marketplace, and address what it can mean to a writer working in the modern era.

The advice is extremely down to earth, and based on the authors' real-world experience. The field is more competitive than ever, and the advent of the internet has done more to confuse issues for the neophyte than almost any other innovation. Barry and Mike dive right into the fray, and while not every writer will agree with all their points, it would be a foolish writer who didn't at least consider what they have to offer.

Fact is, they don't always agree with each other. Malzberg describes their differences bluntly: Resnick's view of the business is the product of success and his

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own is the product of frustration. Where Resnick tends to see opportunities, Malzberg often sees disappointments waiting to rear their heads and take a bite out of the unwary. Because of these differences, the reader gets a fuller understanding of the real world issues facing a writer in the field.

While you're unlikely to find this in your local bookstore, it can be ordered at

www.mcfarland.com or by calling the publisher at 1-800-253-2187. And while the price is steep compared to other commercial books, anyone seriously considering trying to write SF professionally is well advised to get a copy. Probably the only better bargain is a subscription to the *SFWA Bulletin*, where this kind of advice and discussion of the field appears on an ongoing basis. ○

SF CONVENTIONAL CALENDAR

October is the busiest month of the year for SF meets. I'll be at AlbaCon and CapClave. NecronomiCon is good too. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of convention(s), a sample of SF folksongs, and info on fanzines and clubs, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22-L, Newark NJ 07102. The hot line is (973) 242-5999. If a machine answers (with a list of the week's cons), leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con FIVE months out. Look for me at cons behind the Filthy Pierre badge, playing a musical keyboard. —Erwin S. Strauss

OCTOBER 2010

- 8-10—AlbaCon. For info, write: Box 2085, Albany NY 12220. Or phone: (973) 242-5999 (10 am to 10 pm, not collect). (Web) albacon.org. (E-mail) info@albacon.org. Con will be held in: Albany NY (if city omitted, same as in address) at the Best Western Sovereign. Guests will include: writer Alan Steele, artist Ron Miller, fan Lisa Ashton and many others.
- 7-10—Sirens. sirensconference.org. Vail CO. Holly Black, Marie Brennan, Terri Windling. "Women in Fantasy Literature."
- 8-10—Motaku. (816) 863-0164. motaku.org. Park Place Hotel, Kansas City MO. Cassandra Hodges, Sophie McNeill. Anime.
- 9-12—Spain Nat'l Con. hispacon2010.blogspot.com. Burjassot, Spain. Many guests. Spanish SF, fantasy and horror.
- 15-17—ConVersion. con-version.org. Calgary AB. General SF and fantasy convention.
- 15-17—Arcana. (612) 721-5959. arcana.com. Best Western Bandana Blvd., St. Paul MN. C. Kiernan. "The Dark Fantastic."
- 19-28—CruiseTrek, 23852 PCH, #385, Malibu CA 90265. (310) 456-7544. cruisetrek.com. Iberian peninsula from Genoa.
- 22-24—CapClave, c/o Box 53, Ashton MD 20861. capclave.org. Hilton, Rockville MD (near DC). Willis, the Vandermeers.
- 22-24—NecronomiCon, 5902 Thontosassa Rd., Plant City FL 33565. stonehill.org. St. Petersburg FL. David Gerrold.
- 22-24—Eternal Twilight, Box 5773, Milton Keynes MK10 1AS, UK. massiveevents.co.uk. Birmingham UK. Twilight series.
- 22-24—MileHiCon, Box 487, Westminster CO 80036. milehicon.org. Hyatt Tech Center, Denver CO. R. Caine, K. Kurtz.
- 23—SpecFic Colloquium, c/o Merrill Collection, 239 College, Toronto ON M5T 1R5. friendsofmerrill.org. Public Library.
- 28-31—World Fantasy Con, 3824 Patricia Dr., Upper Arlington OH 43220. worldfantasy2010.com. Hyatt, Columbus OH.
- 29-31—HalCon. hal-con.com. Lord Nelson Hotel, Halifax NS. Walter Koenig, D. Crosby, J. Bulloch, A. Douglas, M. Golden.
- 29-31—GayLaxiCon, 1206-44 Dunfield Ave., Toronto ON M4J 2H2. gaylaxicon2010.org. Montreal QC. For GLBT & friends.
- 29-31—HalloWhedon, Box 5773, Milton Keynes MK14 5BH, UK. massiveevents.co.uk. Heathrow UK. A. Tudyk, A. Head.

NOVEMBER 2010

- 5-7—Anime NebraskaCon, Box 85173, Lincoln NE 68501. animenebraskon.com. Holiday Inn on S. 72nd, Omaha NE. E. Vale.
- 5-7—BasCon, Box 282197, San Francisco CA 94128. bascon.org. Embassy Suites. S. San Francisco CA. Adult fan fiction.
- 5-7—SoniCon, 2515 E. Rosemeade Pkwy. #115, Carrollton TC 75007. dfwhedgehogshow.com. Plano TX. Anime and gaming.
- 5-7—Warp 10, Box 5773, Milton Keynes MK14 5BH, UK. massiveevents.co.uk. Park Inn, Northampton UK. Star Trek.
- 12-14—WindyCon, Box 184, Palestine IL 60078. windycon.org. Westin, Lombard (Chicago) IL. Barnes. "The Land of Fae."
- 12-14—FaerieCon. faeriecon.org. Marriott, Hunt Valley MD. J. Yolen, M. Hague, the Frouds. "Celebrating the Magical Life."
- 12-14—Anime USA, Box 1073, Crofton MD 21114. animeusa.org. Arlington VA (near DC). Many guests. "Of, by, for otaku."
- 12-14—KollisionCon. kollisioncon.com. Hyatt, Schaumburg (Chicago) IL. Staples, Axelrod, Mercer. Anime and cosplay.
- 12-14—NovaCon, 379 Myrtle Rd., Sheffield S2 3HQ, UK. novacon.org. Park Inn, Nottingham UK. Banks. Long-time con.
- 12-14—Dimensions, 643 Longbridge Rd., Dagenham RM8 2DD, UK. tenthplanet.co.uk. Newcastle-on-Tyne UK. Dr. Who.
- 12-14—Chevron, Box 5773, Milton Keynes MK14 5BH, UK. massiveevents.co.uk. Park Inn, Northampton UK. Stargate.
- 19-21—PhilCon, Box 8303, Philadelphia PA 19101. philcon.org. Crowne Plaza, Cherry Hill NJ (near Philadelphia). Beagle.
- 19-21—SFConTario, 151 Gamma, Toronto ON M8W 4G3. sfcontario.ca. Ramada Plaza. Swarnick, P. & T. Nielsen-Hayden.
- 20-21—Anime Festival, 2577 N. College Ave., Fayetteville AR 72703. aaf.calm-media.com. Clarion, Bentonville AR.

AUGUST 2011

- 17-21—RenoVation, Box 13278, Portland OR 97213. renovationsfor.org. Reno NV. Asher, Brown, Powers. WorldCon. \$160.

AUGUST 2012

- 30-Sep. 3—Chicago WorldCon, Box 13, Skokie IL 60076. chicago2012.org. Chicago IL. Unopposed bid for WorldCon.

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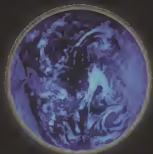


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